MEDICAL

AND

PHYSICAL RECORDER.

VOL. I.....No. II.

Letter from JOHN CRAWFORD, *M. D. on the* SEATS & CAUSES *of* DISEASE—*in continuation from p.* 52.

IN your first number, I gave a sketch of my views respecting the seats of diseases; I shall now offer some opinions as to their causes.

The influence by which diseases are excited, has occasioned endless discussions, for ages. We are evidently not yet arrived at such a degree of knowledge respecting it, as to have given an explanation of what occurs to the enquiring mind. It would be fatiguing to the learned reader, and useless to the uninformed, to take a review of what has been hitherto advanced on this subject; I shall therefore without further preface, suggest what I have to offer.

22. Man is an animal having many properties in common with every other animal. The manner in which geni-

ture and life are effected and supported, are in principle the same in all ; one lot therefore as to deprivation of life, must be similarly equal to all. Thence it should reasonably seem to follow, that if the immediate cause of death, can be clearly ascertained in any one species, it must be alike active in every other, varying only as they vary in their peculiar qualities ; for it may be safely asserted that every individual in nature, is a type of every other, although there is not one that does not in some respects vary from every other.

23. Naturalists have clearly seen that there is a capacity given to every thing possessing life, vegetable as well as animal, to multiply beyond the means provided for nourishing them ; hence it has become absolutely necessary to make a provision for the removal of such as are redundant.

24. This has been accomplished in constituting vegetables to be the food of many animals, and in giving animals only, or a mixture of vegetables and animals, for the like purpose to all others. In this way, ample support is afforded to the various inhabitants of this Globe, numerous beyond the power of human calculation.

25. A war then is incessantly carried on by animals against vegetables, and by animals against each other. Vegetables are insensible of the deprivations to which they are subjected. Animals possess a greater or less degree of sensibility, according to the perfection of their several organs, and being destined to continual invasion, it became absolutely necessary to provide against the wounds this sensibility must experience from their assailants ; were it otherwise all the enjoyments of life must be sacrificed to the apprehensions which a constant exposure to the causes of destruction must occasion.

26. An ample provision against so great a calamity was made by dividing the enemies of life into two classes, the one open, the other concealed.

27. Open enemies are disclosed to all, for the purpose of giving energy to their powers in avoiding the assault, and in resisting the attack, so that the avidity of the assailant shall never exceed the due bounds.

28. Concealed enemies are rendered incapable of discernment by the organs of sense of the assailed, hence their approach gives no uneasiness, no means are employed to elude them, and they carry on their operations without any obvious design of interruption. A limit however must be set to the devastation of all, otherwise extermination must ensue. When any one species too much abounds, some other is ready to crop their luxuriance.

29. It has been well observed by many naturalists, that the most marvellous works of creation are to be found in the minutest beings; that many of the most important designs of supreme power, are effected by their agency, may on proper enquiry be truly ascertained. In every instance they are employed to diminish the superabundance of them that are of a larger size, and it may be fairly concluded, that if we are acquainted with the manner in which they effect this purpose in any one species, it will afford us a clue for detecting their agency in every other, as suggested in 22. That other purposes may be effected by them, will not be denied, for to one cause is certainly often assigned different effects, by supreme wisdom.

30. As there appears to be a law common to vegetables and animals and as the execution of this law is more discernable by us in the former, than in the latter, and in many of the last where the disclosure cannot effect our tranquility, the most effectual method must be to trace the course

of destruction first in vegetables, and then in animals as far as our senses will enable us, and when these fail the defect may be safely and extensively obviated by a chaste and strict analogical pursuit.

31. Every part of a vegetable occasionally discovers disease, either from an insect which feeds exclusively on a particular part, or from others which devour many different parts with equal avidity. The appearances of this disease in vegetables very nearly resemble the external blemishes in animals, and their internal causes of decay often exhibit a parity of semblance. Thus the leaves on innumerable occasions, present appearances similar to cutaneous affections, the tuberosities of various sizes and forms may be well likened to what occur on the surface of animals.—When the mind of man is awakened to such researches, discoveries of the analogy which reigns throughout the whole will often fill it with astonishment, a flood of light will break in which will dispel the darkness by which it had been completley obscured.

32. If the various authors who have treated of diseases, had pursued this plan; if they had strictly confined themselves to observations of nature; if they had never given to these any other interpretation than such as are by her justified, the world would never have witnessed the contentions by which it has been so shamefully agitated. There would have been an unity of view in their investigations, and practitioners would have been as much in accord in their notions of the causes as they are now, and indeed ever have been, in their adoption of appropriate remedies, although unconscious of their real operation. The invisible hand of divine power, has been continually indicating the correct path, whilst the capacity of discerning it was generally withheld. I say generally, because there have been a few who

have advocated an animated pathology, but by omitting to suggest the means by which its existence might be ascertained, they have failed in accomplishing conviction.—When this conviction is happily effected, the medical jargon of the schools will become obsolete, and terms more appropriate to cause and effect, will be adopted.

33. It would little comport with the limit of such a work to enter into a detail of the procedure in the destruction of superabundant vegetables and animals, but the following sketch may serve as perhaps not unworthy of imitation:

A superficial observer in taking a cursory view of the works of nature, would necessarily be struck with amazement at the immense variety, and the apparent confusion which every where obtained; but if capable of reflection, and disposed to examine more accurately, his amazement would be converted into admiration, when he discovered that the most perfect regularity pervaded the whole, every individual had its part to act assigned, each occupied alone with what was requisite, and no one encroaching on the sphere of another, farther than necessity exacted. The delight inseperable from such an enquiry, would be ample compensation for the trouble it requires. It can never be brought to perfection by the efforts of any one individual however assiduous; but there is a rich harvest to reap; the labourers have been hitherto few: as they multiply, the difficulties will lessen, and the gains will accumulate to plenitude.

34. Every plant, shrub, and tree are furnished with organs suitable to their nature, either for obtaining subsistence, or serving as a defence against assailants. Every animal is likewise furnished with what is necessary for the same purpose. All have the means of propagation, and all serve as food in succession to each other. Those that eat, are as necessary to the latter, as the latter to the former.

35. Animals are first appointed for preserving a just proportion in vegetables. Secondly to adorn the great theatre by removing what is superfluous. Thirdly to carry off the impurities that attend the putrefaction and fermentation of dead vegetables and animals; and also the evacuations of the latter whilst living, that the perfections of the great creator may shine with more splendour. Fourthly in providing for the dissemination and consequent multiplication of vegetables and to their more convenient accommodation.

36. Insects, the most numerous servants in the boundaries of nature, which contend with plants in the variety of their species, were held in no estimation—indeed in contempt, during the early ages of which any history remains. They were deemed to have been sent as a punishment to the wicked, but never thought of as the conservators of the several species to which they proved so destructive.—they could not conceive that instruments of so much apparent evil, could have been given for any other purpose, than that of divine vengeance. Hence these little animals, were so much neglected, that scarcely any one noticed them until the discovery of the microscope disclosed the wonders with which they abounded. Then, and not till then, they began to be considered, as of real importance in the economy of their sublime creator.

37. Every thing belonging to man, has a fashion, which for a season, is pursued with ardour; but the human mind is very fastidious, and soon relinquishes any pursuit, however in the commencement it may be considered as worthy of regard. Thus it has happened with microscopic researches. They were the rage for a few years, and then all the operations of nature were attributed to the exertions of this, previouly neglected, race of minute beings. The pursuit has been nearly dormant, at least in so far as it concerned the life of man, for more than half a century; but

it is too interesting, not to have efforts employed for renewing and carrying still farther the investigation of what is so important in every point of view.

38. The depredations made by insects on vegetables, escape no eye. The Papiliones, or butterfly ; the Phalena, or moth ; that species of beetle called Chrysomela ; the Tenthredo, or sawfly ; the beetle named Curculio ; that termed Meloe ; the Aphis, or plant louse ; the Coccus, or cochineal ; the Gryllus and Cicada, or Grasshopper, with thousands of others, suffer no plant that exists, to escape their pillage.

39. But all these, both vegetables and animals are restricted by an unerring and undeviating law. They are confined to their appropriate places. There is a plant provided for every animal destined to feed upon it, to which it ever resorts in preference. But where the quantity of this is deficient, others bearing some affinity to it, are provided to supply the want, but not with equal advantage ; because it is alone by suitable food that life can be preserved in full vigour. Thus silkworms delight most in the leaves of the mulberry ; but where these fail, they feed upon the lettuce, and the leaves of some other plants, by which their existence is supported, but much less commodiously. They do not acquire the same size, slickness, or vivacity ; and the quantity of silk is diminished and of a depraved quality.

40. It has been adduced in 31 that some insects are destined for the several parts of vegetables exclusively, and that others have a more extensive range. Thus some are confined to the leaves, others to the flowers, others to the pericarpium or seedbag, and others to the seed alone, on which they come to their greatest perfection. Thus the leaves of the cabbage have their proper butterfly ; those of the scrophularia or figwort their tenthredo or sawfly ; the

fructification of the same plant has its curculio; a spacies of the same insect subsists upon the corylus or hazlenut; the pear has its moth, or rather the larva of this; for which it affords nourishment; and so of every other.

41. As therefore every plant has its suitable insect, which restrains its inordinate luxuriance, so every insect is sumptuously maintained by its own labour, and derives often from the same source a convenient domicilium and suitable covering, where it propagates abundantly. If however the requisite materials become deficient, it declines, and in proportion to the scarcity it is destroyed. Where, for example, grass becomes exuberant it concedes no place for other herbs; but should the moth of this plant appear, the prodigious number of its larva find a table well furnished.—These immensely increased, fill the husbandman, disappointed of his hay, with complaints of the fatal calamity.—But the grass being all consumed, the phalena famished either die with hunger, or emigrate to some more productive pasture. The superabundant grass being removed, the seeds of other herbs are disseminated in the place it occupied, whence in the following years the beautiful variety resembles the most charming and highly cultivated gardens. Therefore here, if a minister were wanting, they would afford no room for the reproduction of grass, and the support of thousands would be lost. But the means of restoring the equilibrium were not always ready and brought into due operation. For every one a corrector is provided, as exhibited in grass.

The Scrophularia, or figwort, which few cattle eat, affords nourishment to a great variety of insects. The Nettle, which is acceptable to very few of our herds, gives food to at least fifty different species of insects, which suppress a fecundity that would otherwise very much annoy the neighboring herbage.

Of the fruit and other trees, particularly those that are armed, we may form the same judgment. Those that are the least accessible to the larger animals, either from their being furnished with offensive instruments, or their being raised to an impracticable height, are preyed upon by insects fully proportioned to their increment. So many are left, as find nutriment, all are removed for which there would be a deficiency, or which might too much increase upon the stock provided for their neighbor.

42. Insects, we thus perceive, have been created in such multitudes, that the plants to which they are assigned should be restrained within just limits, and to this end they are fit and competent instruments. This office, and we may say, profession they adequately perform, as thence they are secured in all the comforts of life. How admirably well are these laws devised, which thus most effectually ensure to themselves the strictest obedience!

43. But insects, in the ardent pursuit of their occupation, might easily abuse their power, to the ruin of the plants and consequently of themselves, by consuming the whole of what they prey upon, were they not subjected to a similar coercion. It was the will of supreme wisdom to provide moderators for these also, that they might multiply, but not so as to occasion general devastation. For the herbiverous insects of which we have spoken, others are provided, who live upon such of them as would be superfluous. These being carniverous, congregate where there is the greatest abundance of food, and exert their power where it is most required. Thus the Aphides frequently multiply so much as to cover the leaves and branches of plants, so as to render their surface scarcely visible. Hither the Musca, Rhibesii, Pyrastri, Menthastri, Melina, and those of the same genus, assemble, that they may deposit their eggs or their young, for most of them are viviparous in summer and oviparous in autumn, in the situations most favourable to their developement, that is, where the greatest abundance of food is provided. These, in the first instant of their ex-

istence, devour the Aphides with avidity. Hither also the Coccinellæ, Hemerobii, Perlæ, and Chrysospes, also bring their progeny, who partake of the rich repast, and not seldom purge the plants of their insatiable devourers.

44. The Phalenæ Strobilellæ are appointed to deposit their eggs in strobilus abietis or fir-burrs to consume their superfluous seeds; but lest they should impoverish where they are only required to moderate, the Ichneumon of these insects attends and deposits its eggs in their larva. It inserts its long tail into the foramina of the burrs, until it reaches the larva committed to the seeds by the parent, and thus attaches its eggs to their bodies; these when hatched by the heat and moisture, live upon and destroy them to a great extent. To prevent these from exceeding the due bounds, the ichneumon moderator presents itself, which being very small, enters the foramina and deposits its eggs in the body of the ichneumon strobilellæ, thus serving the purpose which its appellation imports.

45. The larva of this phalenæ which consume plants and trees, we have seen are subjected to a like fate, and those to whom the dominion over them are assigned, are little less numerous in their different characters, than are those whose exuberance they are required to check. The species of beetle, carabus, spring by night into the branches of the trees, and eat all the larva of the phalenæ they meet with. Those therefore who cultivate trees, can scarcely find a more effectual remedy for the insects that prey upon them, than by collecting these beetles and disseminating their eggs near their roots. When the young ones come forth, in following the order of nature by seeking their proper food, they will soon destroy the despoilers of the plantation.

46. Wherever there is any fœcal matter, certain insects congregate, and in searching for their food purify the world. Gnats, commit their eggs to putrid and stagnant waters; Musca Putres, in sinks; Domestic flies in dunghills; Musca Cærar, Vomitoria and Curnaria, perpetuate their

species in the carcases of the larger animals. Each of these produce many hundreds of eggs, and multitudes of very small flies, which devour the bodies of the largest horses in a very short time, leaving only a skeleton devoid of fœtor, more speedily and more effectually than could be accomplished by the most potent lyon. These can not accumulate except according to measure. They occupy not a few in restraining their fertility. The arranea family is very extensive: in every stage of their existence, these disgusting animals, prey, with the most savage ferocity, upon all other insects they can overcome, and even upon one another: from the papillæ at the end of the abdomen, they throw out at pleasure, a number of threads of the finest texture, which they unite in various ways for the purpose of entangling their prey. By this means they intercept multitudes, which, by their voraciousness threaten the demolition of all others, but which, guided by an unerring and unfailing hand, circumscribe all, without exception within their due limit. By making all, the food of all, all are well satisfied, and seldom, very seldom it is indeed, that any go empty away.

47. Fish in the waters, are partly herbiverous, and partly carnivorous, The aquatic vegetables are eaten by the former and the latter feed upon the worms and insects that abound in the waters, or upon each other, which obtains to a great extent. Lest, in pursuit of the smaller prey, they should exceed the due bounds, plunderers are provided, that profit by every excess. All are furnished with the means of escape, or of opposition, but all possess these faculties in a measured degree. If they are provided with a defence against some, they are defenceless with respect to others. The excess in number of any species, must yield to a predominant invader.

48. The necessity for this is conspicuous, because fish are not less endowed with the powers of multiplication than vegetables and insects, and equally require a check. As they are constituted to a great extent the food of each other,

this provides against their undue increase. The dead bodies of fish, whether entombed at the bottom of the deep, or floating on the surface of the waters, have whatever is offensive speedily removed by agents amply provided for the important purpose. The crab and all of that family, the eel in all its variety, with a multitude of others down to the most minute, secure the living from sustaining offence by an exposure to the dead.

In a future number, I shall carry on as concisely as possible, the order of nature in the other classes of being, and have no doubt of proving to every candid mind, that one law is given to all, and that from this there is not one exempted.

(To be Continued.)

AN ACCOUNT OF THE ADVANTAGES DERIVED FROM

THE *COLD* PLAN OF TREATMENT

FOR THE

MEASLES.

By Cosmo G. Stevenson, *M. D. in a Letter to the Editor.*

Sir,

Permit me to congratulate you on the appearance of the first number of your "Medical and Physical Recorder." A work of this kind has long been wanting in this city, and I hope you will find that encouragement, which the endeavours to extend medical knowledge so richly merit.—Under this belief and willing to contribute what I possess worthy of communication, I offer the following, which is at your service if it meet your approbation.

The disease of measles has created as much alarm and contest in society, perhaps as any other, and certainly, we are by no means so well acquainted with this, as with many of the numerous maladies, to which mankind are subject.

The appearance of the measles, this season, in our city, has particularly engrossed my attention. Its destructive ravages at former periods, and the great diversity of opinion in its mode of treatment, have been matter of serious regret to me. I had been taught to consider the disease of a peculiar eruptive nature, having a remarkable tendency to the lungs; and lest the morbillous affection should immediately be checked, and fall precipitantly upon the viscera, I was ordered to bleed occasionally, to give saffron tea, *hot toddy* cordials &c. Under such treatment many died, and in those who recovered, distressing symptoms, such as Pneumonic affections, Opthalmia, and debility generally

supervened. Having at a former season this experience such an unfortunate issue, I, this year, determined to pursue a different mode, conscious it would not be more fatal than the former.

My first care was to keep my patients perfectly *cold*; to allow them scarcely any covering whilst in bed; and to be but thinly dressed while walking about. I compounded an equal portion of Jalap and Nitre, as a cooling purgative. Of this I give from twelve grains to half a drachm, twice a day according to age and constitution, from the commencement of the eruption for two or three days: ordering at the same time, a strict antiphlogistic regimen and as much cold water as the patient should desire to drink. All heating, or what is called Cordial diet, was emphatically forbidden.—My success surpassed my most sanguine hopes. My patients on the second day from the eruption, were relieved from the distressing and dangerous symptoms, and in many instances were not confined even for an hour. Some of them ran into the streets during a smart fall of snow in January yet they not only escaped all the dreaded effects of a *retrograde* eruption, but even convalesced much sooner than others, where all my persuasions were not capable of overcoming the prejudices of their parents, in favour of a warm method of treatment.

No one will deny the measles to be an inflammatory disease, and no one will refuse to bleed frequently and copiously in this complaint, where the pneumonic symptoms occur. And yet those very persons who grant all this, and who in a pleurisy or pneumonia, would order the strictest antiphlogistic regimen, who in smallpox, erysipelas, and every other eruptive disorder, would not hesitate a moment to deprecate the warm method of treatment, will, when measles present themselves, thunder anathemas against those who follow the dictates of reason and analogy, and themselves desert the very principles they have ever inculcated.

How comes it that the *morbillous* matter should be the bugbear of Physicians? What peculiar tendency has this eruptive disease to the lungs, beyond all others? How happens it that they supposed saffron tea and hot toddies will cure this disorder, when they fail in all other cutaneous inflammatory ones? For my part I cannot tell, and I wish those who are such a violent advocates for the warm system, would disclose their secret knowledge.

If we contrast the difference of treatment of smallpox, at present with what it formerly has been, we shall be convinced. That disease not a great many years since was supposed to be fatal, unless managed on the stimulating and cordial plan; but Physicians have seen their error, and now reverse the treatment; and where by the former method they lost twenty, they now do not lose one by the cold plan. What then from a parity of reasoning can be the objection to altering the mode of cure in the measles? I have deviated from the common path, and superior success justifies the measures I have adopted; and an enlightened faculty, cannot view my efforts for the alleviation of this disease, in any other light than the benefit of society, and the expulsion of inconsistent theory.

I have not witnessed a single case where measles have left a predisposition to Pneumonic affection when treated on the *cold* plan. The Cynanche Tonsillaris attended every case that came within my notice, but in no one instance have I seen Cynanche Maligna or Scarlatina, except when the warm regimen was closely adhered to. I am not prepared to say, whether the Cynanche Tonsillaris be a *symptomatic* concomitant of measles; as many were affected with the first who did not labour under the latter. The only remedies I recommended for the inflamed tonsils were to steam the throat with hot vinegar and water, where it could be done, and bathe it externally with the Volatile liniment.

I would call your attention to two more circumstances without deciding upon them.

It has long been a desideratum to ascertain whether measles could be communicated by the cloathing of a person uninfected, who is in the practice of visiting persons labouring under this disease;—take the following fact. A child two weeks old was seized with the measles: neither the child nor mother had been out of the house, nor had any person infected with the disease entered it since the birth. But the aunt in whose family the disorder prevailed, daily visited the sick woman. Quere, Did the aunt convey the infection in her cloathing?

I shall next remark, that the measles made their appearance in my father's family, and in my own. The strict antiphlogistic plan, as previously described, was adhered to. The persons affected (one in each family) rapidly recovered, yet the disease was not imparted to any of the rest of the families, though there were several in each who had never been attacked with it, and though there was a free communication between the indisposed and the healthy.—Does this imply that the COLD regimen destroys the infection of the measles? For we see this complaint extending to every member of a family not previously infected, where the warm treatment is prescribed.

I invite the dispassionate enquiry of every Physician.—Let him make trial of the method here recommended, compare the results, and I am satisfied he will avert the tear of the afflicted parent; soothe the cares of the disconsolate relative; and contribute both to render himself a greater friend to mankind, and the healing art more respected.

Yr's respectfully,

COSMO G. STEVENSON.

DR. WATKINS.

Baltimore, May 24, 1808.

[It gives me pleasure to add my testimony to that of Dr. Stevenson in favour of the *cold* plan of treatment in the measles—It is now three years since I had the temerity to differ from the treatment prescribed by all practical authors for this disease, and out of a great number of patients I have never lost one. The practice of admitting cold air to persons affected with the measles is by no means new, but it appears that the success attending it was not such as to warrant so great a change. Cullen seems to have been of opinion that it might be admitted during the eruptive fever, but dreaded its dangerous tendency in the catarrhal symptoms which so generally followed. In not one instance that I can recollect, was there any catarrhal affection *after* the entire desquamation of the eruption, in any of my patients — In the greater part of them a slight opthalmia succeeded, which in a few days disappeared without any remedy. Indeed I have seldom found it necessary to order any medicine except a cooling purgative with a few doses of the syrup of squills to alleviate the cough when distressing, and I have no hesitation in saying that where heating diaphoretic medicines and warm chambers are avoided, ninety-nine out of every hundred persons attacked with it would recover without the assistance of a Physician].

EDITOR.

CASES,

TAKEN FROM THE MARINE HOSPITAL BOOKS;

By the Editor.

CASE I. Ascites and Anasarca.

L. D. a seaman 25 years of age, was admitted into the Marine Hospital April 4th, 1808. He had just arrived from Holland in a ship with ninety others, all of whom had been captured and imprisoned for some months previous to the sailing of the ship—during the passage he was seized with an intermittent fever, the paroxysms of which were stopped by such remedies as were found on board; at this time the abdomen was swelled to twice its natural size, and the thighs and legs also considerably enlarged—he had a slight fever every night, no appetite and his eyes and the whole surface of his body wore a yellow bilious aspect.—Ordered 2 oz. of the acidulated Tartrite of Potash with a pint and a half of water for a drink to be used freely during the day until the bowels should be opened, and at night 20 grs. of the Nitrate of Potash.

5th.—The medicine had no operation—the urine came away very sparingly and high coloured and all his symptoms were the same.—Ordered the drink to be continued with the addition of half an ounce of the Nitre

7th.—The medicine had produced only two watery evacuations—the urine continued high coloured and small in quantity—the swellings not at all diminished—the distension of the abdomen appeared to be greater—and the febrile disposition continned.

℞. Mur. Hydrarg: Mit. ʒ j.
Nitr: Potass: ʒ ij
Pulv: Rad: Scillæ ʒ ß M. ft. Pulv: duodecem-qu: unum cap: ter in die.

8th.—One small motion had been produced and the urine was somewhat paler but not at all increased—he sweated freely last night and had less fever than usual—size of the abdomen and extremities the same—Continue the powders.

9th.—Several motions had been produced yesterday and I was surprised to hear him complain that his mouth was sore, and to find the gums enlarged and inflamed—he made during the day a pint and a half more of urine than usual, and perfectly colourless; sweated profusely during his sleep, which was calm and undisturbed through the night—neither the abdomen nor extremities were at all diminished in size.

10th.—He still complains very much of his mouth but has no increase of saliva—had three motions yesterday and an increased flow of urine—the swelling of the thighs is somewhat lessened, but that of the abdomen and legs undiminished—Continue his medicine.

11th.—The saliva began to flow last night, and before 10 o'clock this morning three pints had run from his mouth; the face very much swelled—he had two motions yesterday, and a plentiful evacuation of urine—bnt I was astonished, upon examining the abdomen, to see the diminution which had taken place, of its size—The legs and thighs appeared to be very little preternaturally enlarged, and he had had no fever. He complains very bitterly to-day of his mouth, be-

ing utterly unable to eat any thing, though his appetite is better than it has been for six months.—Continue his powders, but diminish the dose of the Mur : hyd . Mit : from 5 grs. to three.

13th.—The saliva has continued to run from his mouth in an uninterrupted stream—no preternatural enlargement either of the abdomen or extremities can be observed to-day ; he begs very hard that the salivation may be stopped, and thinks he would be perfectly well but for his mouth, which continues sore, and the whole face very much swelled.—℞. Sulph : Sublim: ℈ ß. omni secunda hora sumend : donec responderet alvus—et fiat gargarisma communis.

14th.—Not the smallest appearance of his disease remains —The face continues swelled, and the spitting still profuse and troublesome.

℞ Pulv. Cinch :

Pulv. Rad : Colomb : ā ℥ß. M. Cap. drachmam unam quater in die et bibat vini libræ tertiam partem, die pendente. This plan was continued, with a nourishing diet until the 30th, when, to use his own expression, he was "as hearty as ever he was in his life."

CASE II—*Syphilis.*

B. H. aged 30, was admitted into the Marine Hospital April 9th, 1808, with a large swelling in one of the inguinal glands and numerous small ulcers scattered over the whole body—The infection had been received, according to his own account, about twelve months before, during all which time he had been at sea, where by the use of certain remedies he had thought himself cured of the disease, having then only a chancre on the glans penis, which soon disappeared. Three months ago, however, small red pimples began to appear on several parts of his body, which soon suppurated and became troublesome ulcers.—On the 1st in-

stant one of the Inguinal glands began to swell, and the tumor was now considerably enlarged and inflamed. Ordered a cathartic of Sulph: Sodæ, and a warm cataplasm of bread and fat to be applied to the Bubo, and renewed twice daily, until sufficiently mature to be opened. Such of the ulcers as required it, were directed to be washed with soap and water—and after the full operation of the cathartic, he was ordered to take the NITRIC ACID in the quantity of two drachms daily.

On the 12th, the bubo was laid open with a lancet, and directed to be dressed with Saturnine ointment;—he was forbidden the use of any sort of meat, and ordered to live wholly upon vegetables.

18th.—The saliva was a little increased in quantity, but the mouth not at all sore—the bubo was healing well, and the smaller eruptions had entirely disappeared—From this time to the 30th the Acid was continued with the occasional use of some cathartic medicine; during which time the secretion of saliva was very copious, but no other troublesome effect resulted—the quantity of the acid was lessened to one drachm in the day—on the 10th of May, every ulcer was healed, and no appearance of disease remained.

Having met with so much success in the use of the Nitric acid for Syphilis, in its most horrid and appalling state, I was almost tempted to pronounce it infallible—but finding that in some cases, it not only produced no good effect, but actually aggravated every symptom, I was induced to institute the strictest scrutiny into those particular constitutions and states of the system, by which such different results were made to appear; from this enquiry which has been patiently and attentively pursued for nearly twelve months, the following conclusions appear to be fairly deducable.

1st.—That in every case of inflammatory diathesis or febrile disposition the Nitric acid will act injuriously, and

2nd.—On the other hand that when these appearences are not present and particularly where any scorbutic taint is combined with the Syphilitic affection, the Acid will seldom fail either to make a radical cure or greatly to alleviate the distressing symptoms.

In no instance did the use of this medicine produce those disagreeable and offensive symptoms attending a salivation by Mercury, though some few complained of a soreness of their mouths, and in many the teeth were a little loosened during the increased flow of saliva—but these complaints were removed in a few days after the acid was laid aside.

CASE III—*Diabetes.*

T. S. a seaman aged about 25 years was admitted April 14th, complaining of severe pain about the region of the kidneys and along the whole course of the thigh as far as the groin, with frequent, involuntary and copious discharges of colourless urine—he had been subject to frequent attacks of intermittent fever, from one of which he had lately recovered, and was fond of iudulging to excess in the use of ardent spirits. He was considerably debilitated and emaciated from the long continued severity of his disease, and under such circumstances, I could not think of adopting the depleting plan recommended by Doctor Rush, for the same reason I considered that the operation of Mercurials would be too painful for his system to support—without much hope of rendering him any service, I ordered 40 drops of the Bals: Copaib: to be given to him night and morning, with a free use of port wine and a nourishing diet.

15th.—Little or no alteration of his symptoms had taken place—he had been seized during the night with an Epileptic fit, to which upon enquiry he was found to have been long subject—about three quarts of urine had been made during the last twelve hours—prescription continued.

16th.—Had nine or ten copious evacuations by stool since yesterday—feels considerbly relieved from the pain in his

back and has made no urine involuntarily during the night; appetite voracious, but his thirst very moderate—medicine continued.

17th.—Feels entirely free from pain and has passed but two quarts of urine for the last twenty-four hours, and that entirely under the controul of the will—the intestinal discharges continue frequent and troublesome—ordered 20 drops of Thebaic tincture to be added to each dose of the Balsam, and repeated as occasion might require—a free use of the wine to be continued.

18th—My patient felt much better, the Laudanum had had the effect of lessening the frequency of the diarrhœa, and he had passed urine three times since my visit of yesterday, and in very moderate quantities.

19th.—He felt so entirely free from all symptoms of disease, that he requested to be discharged from the hospital.

The diabetes is so seldom met with in practice, and is so unfrequntly cured by any remedies which have been hitherto adopted, that I feel some hesitation in declaring this to be a true case of the disease, particularly as it wanted that symptom which Cullen asserts to be its only real characteristic, namely, a saccharine taste of the urine: notwithstanding this, however, he has mentioned several cases under that title where this symptom was not present; and other authors since him, have seemed to consider it by no means as an invariable concomitant. By whatever name the disease may be called, it is certain the kidneys were affected, and here a question naturally presents itself, how did the balsam copaibæ act in restoring these organs to a state of health? From the short time the patient laboured under these symptoms after the use of the medicine, it may be fairly inferred that it did not cure him by an action upon the system generally. Is there then a direct communication from the stomach to the kidneys, by which the medicine might have had an immediate action on the latter, and thus have so soon restored their tone, the loss of which was the cause of their morbid action?

A CASE OF METASTASIS,

Communicated to the Editor by Doctor G. WILLIAMSON, *of Baltimore.*

MY GOOD FRIEND,

The following is the transcript of a case which I read before the Medical Association of this place in 1807, and which, if you think worthy of a place in the Recorder, is very much at your service.

G. WILLIAMSON.

Dr. T. Watkins.

GENTLEMEN,

Since the establishment of this Association, my engagements have been so numerous as to prevent me from being able to prepare an essay worthy your attention; and were it not to absolve myself from a duty assigned me as a member of this body, you should not hear from me at present.

In compliance with this duty, I have hastily drawn up the following case, which lately occurred in my practice, and terminated fatally.

To me it is by no means a pleasing task, to give the history of a case which has thus terminated; but conceiving it our incumbent duty to communicate any thing that may occur to us, which we consider extraordinary, or think may have a tendency to diffuse useful information, or lead to instructive investigations and enquiries; and believing this by no means a common case, I have thought proper to present it to you, hoping, no delicacy on your part, will be a means of keeping you from expressing your sentiments freely, for be assured, my fear of judicious criticism is far surpassed by a solicitude for useful knowledge.

On the 5th May, 1807, I was called on to visit a girl æt. 8 years, who had been indisposed twenty-four hours previous to my seeing her. I found her labouring under pleuritic symptoms—pain in the side, oppression at the precordia, respiration difficult and painful, pulse full and strong. I bled her, but did not give any medicine, as she had taken a purge the day preceding.—Visited her in the afternoon, as it had been some hours since she had had a dejection, and as other symptoms indicated the propriety of a cathartic, one was administered.—Saw her again in the evening, when she was delirious, and had been so for several hours; her head was much affected, with suffusion of the eyes, and other symptoms of Encephalitis; [Phrenitis] pulse still full and strong, bled her again and applied an Epispastic to the back of the neck.

6th.—Much better, did not complain of any pain, perfectly free from delirium, head nearly relieved, pulse much more natural; as her bowels had not been freely opened, another purge was prescribed.

7th.—Inflammatory symptoms had nearly subsided, free from pain, and only complained of a little nausea, for which some gentle stomachic was given.

8th.—Symptoms were of a dysenteric nature, no fever except at night, for which she took a mixture composed of Crem. Tart. Sal. Tart. & Tartr. Antim. for the dysenteric symptoms calomel and opium were prescribed.

11th.—Symptoms were favourable, the febrifuge was continued through the night; and as she was much debilitated, an infusion of Colombo was prepared for her to take through the day.

15th.—Dysenteric symptoms were increased, for which recourse was had to an anodyne julep.

18th.—She was indulged with some improper diet, which produced excruciating pain in the bowels; they were relieved by the operation of a purgative, her abdomen was now considerably swollen, and there appeared a general disposition to dropsy; previously to taking the purgative the abdominal muscles were distended like a bladder completely inflated; and so very painful that she could not bear any person's hand laid on them, even in the most gentle manner.

20th.—From the violent dysentery and other complicated affections, she had become so debilitated, as to faint on being raised up in bed; her abdomen was so painful, that on being moved, she complained bitterly, and without great caution, screamed with agony. A julep of æther and laudanum was now prescribed, for the dysenteric affection.

22nd.—Was much better; dysentery nearly ceased; an eruption about the nose and mouth had made its appearence —this I conceived a favorable symptom, some appetite, previous to this, for several days she had little or none.

30th.—Symptoms were very favourable; sat up some time; had a good appetite, and appeared to be gaining strength.

June 5th.—Continued to mend and gain strength, being able to be carried out of the room into the adjoining rooms; also, able to sit up some hours in the day, and e-

ven to walk a few steps; however she walked but little, for had she been able, the pain in the abdominal and neighboring muscular parts would have prevented her from making the attempt. For several weeks she went on thus, and although, her appetite was voracious, and we had no apparent disease to contend with, yet she gained very little strength.* The Colombo was continued in as large quantities as we could get her to take it; the anodyne julep was also occasionally given to suppress a diarrhœa, to which there was a great disposition. During the last spring she had the Tussis Convulsiva, and, her mistress says, has never since been free from cough; about the middle of this month, after having been confined about six weeks, and being very much emaciated, her cough became exceedingly troublesome; however, as she did not expectorate any thing of a purulent nature, I supposed it owing to general debility, and not to any immediate disease of the lungs. Whilst on the broad basis of conjecture, it might be more congenial to the opinions of some, to suppose it owing to a direct association between the lungs and some other diseased organ —very well, we agree in believing it a symptomatic and not an idiopathic affection; and in the sequel, I believe it will prove to be of a hectic nature, but not in consequence of a suppuration or an abscess in the lungs. She had in addition to the cough, a profuse perspiration & at other times her skin was dry and parched; the pulse was almost imperceptibly quick and weak; respiration hurried, &c. She still complained much of her abdomen, but would not permit it to be examined: when moved by her nurse except great care was taken, she screamed violently from the excruciating pain... About the 16th inst. her mother informed me that her belly

* From frequent observation I am now induced to believe this in many diseases, an unfavorable symptom; particularly in those where the primæ viæ are chiefly interested; and more especially in the Cholera Infantum.

was much swollen, and that the navel was considerably enlarged, and further that she wished me to examine it, which the daughter positively refused. As she was very much reduced I was afraid to use positive means, and deferred the examination for a day or two until she could be persuaded to yield. When I first saw it, the abdomen was much swollen, the umbilicus considerab y protruded, and enlarged to the size of a hen's egg; from its shining app arance &c. a suppuration might have been suspected—she would not suffer me to touch any spot near the diseased part even with a single finger, consequently my examination was very partial. As her face, her feet and legs were also much swollen, I thought it more than probable the disease was of a dropsical nature, and more for satisfaction than any prospect of relieving her, recommended some simple application.

On examining the abdomen next day, the appearance of suppuration was considerably increased; and a though she would not permit me to touch the diseased part, yet I was so completely satisfied of the nature of the affection, as to recommend a bread and milk poultice. About the 18th or 20th pus was discharged through the umbilicus in large quantities.

The impending danger was now very great, for although the abscess did not break internally, and inundate the abdominal viscera, which might have hastily closed the painful scene, or which would at least have required a painful and hazardous operation to have procured relief, yet from the extreme debility of the patient, and her refusing to take tonics sufficient to support the system, while the discharge of pus was daily increasing, it was to be feared that death would inevitab y, be the consequence.*

* I have considered this enlargement an abcess, of course suppose the pus was not diffused through the cavity of the abdomen, this opinion has

With many entreaties, and not a few presents, she was prevailed on to take occasionally of the Colombo: her hectic symptoms increased, and the disposition to diarrhæa continued; this was generally suppressed by the anodyne portion judiciously administered. In order to allay the cough, which was at times very troublesome, a mixture of Syrup: Scillæ & Tinct. Opi: Camph: was, as necessity required, administered.

From the 20th June to the 8th July, there was no very material alteration. Some days she appeared stronger, then again weaker; at times the discharge would nearly cease, and at other times issue more abundantly. When the discharge was considerable, there was not much pain in the parietes of the abdomen; but the general debility was great; when it nearly ceased, the pain was increased but she was stronger. Some days she could sit up half an hour at a time, and others not a minute. Until this period her appetite had been very great, which I conceived a circumstance truly fortunate, although we were compelled to be extremely cautious with her nurses, that they might not indulge her with any improper diet, or with too much of such as we thought proper. The correctness of this procedure must be obvious to every reflecting mind, conversant in the healing art, for from taking improper diet, or too much of what was proper, a cholic or diarrhæa, or both, might have been the consequence; which must have been very injurious, if not have occasioned almost immediate death. In fact with all our precautions we were not always able to prevent entirely those complaints; but fortunately when they occurred, they were soon remedied.

July 15th.—A week ago I had strong hopes of her recovery: her appetite then being very good, and the discharge

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been formed from the circumscribed appearance of the tumour; also from her complaining of much pain round its superfices when distended.

from the umbilicus not great; the disposition to diarrhæa was also nearly removed; cough less troublesome; skin more natural and cool; hectic sweats less copious; countenance and phisiognomy indicative of returning health. But about the 10th, these symptoms gave way to those of an unpleasant nature; her appetite began to decline, her stomach rejected medicine and not unfrequently diet; the diarrhæa became troublesome and obstinate; pulse tremulous and impereeptibly quick, and on the 20th she sunk into the arms of death.

Two or three days previous to her decease, the discharge from the umbilicus entirely ceased, and there was no enlargment of the abdomen, nor any symptom of disease directly in the parts adjacent.

As it is much more easy to describe an article, that has been presented to and examined by our senses, than that which the mind forms from mere report; so we can form a more correct opinion of a disease after it is completely developed, than in its forming state; and though I have ever adopted the practice of prescribing for symptoms, and not for nosological names; yet diseases are sometimes developed in such an unexpected manner, that I am induced, nay compelled to believe, had I been able to have completely foreseen what would take place, I could have preseribed with greater success. But that Omniscient Being who created all things, did not, in creating man, design him to be equally so!

A physician who has read, thought, and observed profoundly, and who possesses a good discriminating judgment may, not unfrequently anticipate the different progress of a disease with considerable correctness, but the most able cannot be always thus fortunate; and therefore it is certainly more judicious to prescribe for the symptoms of a disease than for its name.

In the preceding case when my patient was labouring under pleuritis, little did I think that in less than twelve hours it would give way to an inflammation of the brain; and when this was nearly vanquished, I had not the most distant idea, that the most violent dysentery I ever saw, would so soon follow; and finally that a suppuration in the umbilical region would close the painful scene; however, according to my maxim, in every instance I prescribed medicines which I thought most proper for the prevailing symptoms, and not for the name of the disease. Had I been gifted with the spirit of divination, so as to have been able to foresee every change which would take place, I do not know that I could have adopted any practice which would have been attended with greater success. Perhaps had I depleted more in the commencement of the disease, it would have been beneficial; or when the dysentery was at its height, a blister applied on the abdomen might have been of service; or after a suppuration had taken place, and my patient was daily losing strength from the discharge of pus, it may be said I ought to have given the bark. I frequently canvassed in my mind the propriety of giving this medicine, and as frequently rejected it as improper, for (as has been already observed) there was a great disposition to diarrhæa; and it was with the greatest possible difficulty it could be kept under. Now it is well known that the bark has a great tendency to excite diseases of this nature even when the intestines are previously in perfect health; and when they are excited to a disease of this nature, its irritative quality increases it; it also at times, and in particular persons produces violent pains, grievous to be borne; however, had we been confident that the bark would not produce this effect, but that it would be salutary, we could not have prevailed on her to take it, for she would take the Colombo only when she pleased, and then in doses too small to be as highly useful as could have been wished. Chamomile tea and other

agreeable bitters which were prescribed, she would not take. Had I been permitted to examine the abdomen, when she first complained so much of pain, &c. it is possible I might have discovered the approaching abscess; and had I discovered it, it is also possible some application might have been had recourse to, which would have effected a resolution; but having never seen, read, or heard of a similar case, I did not suspect any thing of the kind, and was less anxious to examine the parts, than I should be were I to meet with another patient similarly affected.

Although I never saw a patient labouring under an affection precisely like this; yet, during my practice on the Eastern shore of this state, I was applied to in the case of a young woman, aged about 18 years, who had a discharge from the umbilicus. It could not have been considered a suppuration, as there were no symptoms of inflammation, from the commencement of the disease to its termination, and the fluid discharged, had more the appearance of serum than of pus; the discharge was not very copious, but continued several weeks. There was some little enlargment in the neighboring muscular parts, but as well as my memory serves me, she did not complain of much pain, and in other respects I believe she enjoyed good health.

This case, in a very forcible manner, points out the wonderful association and close connection existing in the human system; and how very soon a translation of a disease can take place from one important organ to another; so much so, that it would seem almost impossible for a physician possessing even the quickest perception, and most accurate judgment, to keep way with the morbid affection.

GENERAL DIFFERENCES

BETWEEN

ANIMAL AND ORGANIC LIFE,

With respect to the exterior forms of their respective Organs.

(Translated from Bichat's Physiological Researches.)

The most essential differences which distinguish the organs of animal life, from those of organic life, are the symmetry of the one, and the irregularity of the other. Some animals offer exceptions to this character, particularly as to animal life: such are, among fish, soles, turbots, &c. different species of the non vertebral animals, &c. &c. but it is exactly traced in man, as well as in those animals which approach him in perfection.—It is here only that I shall examine it, to be convinced of it, a mere inspection is sufficient.

§ I. *Symmetry of external forms in animal life.*

Two globes perfectly alike receive the impression of the light. Sound and odours have each also their double analagous organ. An unique membrane is also appropriated to savours, but in it the median line is manifest; each segment pointed out in it is like to the opposite one. The skin does not always present to us, visible traces of this line, but it may throughout be supposed to exist. Nature, in forgetting, if I may thus speak, to draw it, has placed from space to space, projecting points to indicate its course. The

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fissures at the extremity of the nose, of the chin, the middle of the lips, the umbilicus, &c. &c. form chiefly the points of indication.

The nerves which transmit the impression received by sounds, the optick, the acoustick, the lingual, the olfactory, &c. are evidently assembled in symmetrical pairs.

The brain, the organ where the impression is received, is remarkable for its regular form: those parts which are divided into pairs, resemble each the other, such as the bed of the optick nerves, the sinuses, &c. &c. &c. the single parts of it are all symmetrically divided by the median line, of which there are several visible traces.

The nerves which transmit to the agents of locomotion and voice, the volitions of the brain, the locomotory organs formed in a great measure of the muscular system, the osseous system and its dependencies, the larynx and its accessories, possess a regularity, a symmetry which never deceive.

Such is the truth of this character, that the muscles and nerves cease to be regular, when they no longer belong to animal life. The heart, the muscular fibres of the intestines, &c. are a proof of this with respect to the muscles; as to the nerves, the grand sympathetic, every where destined to the interior life, presents in the greater part of its branches an irregular distribution. The mesenteric, hypogastric, splenic, &c. &c. are examples of it.

We may then, I think conclude, after the clearest inspection that symmetry of form is the essential character of the organs of life in man.

§ II. *Irregularity of external forms in organic life.*

If we pass on now to the viscera of organic life, we shall see that a character exactly opposite to the one just laid down is applicable to them. In the digestive system, the

stomach, the intestines, the spleen, the liver, &c. are all irregularly disposed.

In the circulatory system, the heart, the large vessels, such as the arch of the aorta, the venæ cavæ, the vena porta, &c. offer no trace of symmetry. In the vessels of the limbs, continual varieties are observed, and what is remarkable is that in these varieties, the disposition of one side never resembles that of the other.

The respiratory organs appear at first sight to be exactly regular; but if we remark that the right lung is different from the left in its length, diameter and direction; that one lung is composed of three lobes and the other of two only; that there is a manifest inequality of volume in these organs; that the two divisions of the pulmonary artery, resemble each other neither in their course nor their diameter, &c. &c. we shall see that the symmetry was here but apparent, and that the general law suffers no exception.

The organs of exhalation and absorption, the serous membranes, the thoracic canal, the great right lymphatic vessel, all the secondary absorbents have, throughout, an unequal and irregular distribution.

In the glandulous system, we see the cryptæ, or mucous follicles every where dispersed without order, under their respective membranes. The pancreas, the liver, the salivary glands themselves, though at first sight more uniform, are not found to be exactly situated with respect to the median line. The kidneys differ from each other in their position, the number of their lobes in the infant, the length and thickness of their artery and vein, and especially in their frequent varieties.

These numerous considerations lead us evidently to a result the reverse of the preceding, that is to say, that the particular attribute of the organs of the internal life, is the irregularity, of their external forms.

§ III. *Consequences which result from the difference of the external forms in the organs of the two lives.*

It appears from what has been said, that animal life is, as it were, double, that its phenomena executed at the same time on two sides, form, in each of these two sides, a system independent of the opposite system; that there is, if I may thus express myself, a right life, and a left life; that the one may exist when the action of the other ceases, and that they are doubtless destined to the reciprocal supply of each other.

This happens in those common sickly affections, when the sensibility or animal mobility, weakened or even destroyed entirely in one of the symmetrical divisions of the body, are not excited by surrounding impressions; where the man on one side is scarcely more than vegetable, whilst on the other he preserves all his right of animality, in the sensation and motion which remain to him. Certainly these partial paralyses, in which the median line is the end and origin of the faculty of feeling and moving, cannot be observed with as much regularity in those animals, which, like the oyster, have an irregular exterior.

Organic life, on the contrary, forms but one system, where all is connected, where the functions of one side cannot be interrupted, without necessarily arresting those of the other. The liver diseased on the left side influences the right on the state of the stomach; if the colon of one side ceases to act, that of the other cannot continue its action: the same blow which stops the circulation in the great venous truncs and the right portion of the heart, arrests it also in the left portion, and in the great arterial truncs of this side, &c. whence it follows that supposing all the organs of internal life, of one side, to cease their functions, those of the opposite side must necessarily remain in inaction, and death will ensue.

This assertion, however, is general; it bears good only as to the assemblage of organic life, and not to its insulate phenomena; some in fact, are double and may supply each other, of which the kidneys and lungs furnish examples.

I shall not search for the cause of this remarkable difference, which in man, and in those animals which approximate him, distinguishes the organs of the two lives; I will only observe, that it enters essentially into the order of their phenomena, that the perfection of the animal functions should be connected with the symmetry generally observed in their respective organs, in so much, that whatever disturbs the symmetry, must more or less alter these functions.

It is doubtless this which creates this other difference between the organs of the two lives, namely, that nature more rarely gives herself up to these rambles of conformation in animal life than in organic life. Grimaud has made use of this observation, without telling us the principle upon which the fact which it presents to us rests.

It is a remark which cannot have escaped those accustomed to dissections, the frequent variations of the form, size, position and direction of the internal organs, as the spleen, the liver, stomach, kidneys, &c. So great are these varieties in the vascular system, that scarce two subjects offer the same disposition to the knife of the anatomist. Who does not know that the organs of absorption, the lymphatic glands in particular, are seldom subjected in two individuals, to the same proportion of number, volume, &c.

Not only is each system, examined by itself, found subjected to these frequent aberrations, but the whole of the organs of internal life are sometimes found reversed from their natural order. A child was brought to my amphitheatre during the last year, who had lived several years with an *error loci* of all the viscera. On the right, were found the stomach, spleen, the arch of the colon, the apex of the

heart, the aorta, the two-lobed lung, &c. On the left were seen the liver, the cæcum, the base of the heart, the venæ cavæ, the three-lobed lung, &c.

All the organs placed under the median line, such as the mediastinum, mesentery, duodenum, pancreas, and the division of the bronchiæ were also placed in a reversed order. Several authors have spoken of these displacings of the viscera, but I know of no instance in which an example of it was so complete.

Let us now cast our eyes upon the organs of animal life, upon the senses, the nerves, the brain, the voluntary muscles, the larynx, &c. all here is exact, precise, and rigorously determinate in form, size and position. Varieties of conformation are here scarcely ever seen; if they do exist, the functions are disturbed, while in defiance of the different alterations of the parts in organic life they remain uninterrupted.

The play of each organ, in animal life, is immediately connected, to its resemblance with that of the opposite side, if it be double, or to the uniformity of conformation in its two symmetrical halves, if it be single. Hence may be conceived the influence of organic changes, or the derangement of the functions.

But this will become still more intelligible, when I shall have pointed out the relations which exist between the symmetry or irregularity of the organs, or the harmony or discord of the functions.

TWO CASES OF

FISTULA IN ANO,

SUCCESSFULLY TREATED BY MERCURY,

In a Letter from NATHANIEL POTTER, M. D. &c. *to the Editor.*

DEAR SIR,

I herewith enclose the history of two cases of Fistula in ano successfully treated by Mercury. Should you deem them worthy a place in your useful miscellany, they are ta your service. So transported was Basil Vallentine with the success of antimony in the cure of fevers, that he celebrated its praises in a book, magnificently entitled the *Currus triumphalis antimonii.* Had he lived in these enlightened days, he might have found a more fit subject for panegyric, in the transcendant virtues of Mercury.

In June 1798, G. B. aged thirty-nine, consulted me in his own case. He gave me the following account of his disease with which he had been afflicted nearly six years.—"That almost six years ago he had been affected by the internal hemorrhoids which continued to harrass him at intervals for upwards of two years before he discovered any

symptoms externally. The discharge from the internal affection had varied from bloody to serous, and from serous to bloody, though neither had ever been very considerable. In August 1794 he discovered a tumour on the left side of the rectum near its verge; which increased gradually for about three months; when it broke and discharged a mixture of water and feces, which it had continued to do ever since. For four years he had lived a life of the most excruciating pain, which nothing but the stupefactive qualities of Opium could beguile. Though continually in pain, it varied in its degrees according to the state of the ulcer. After the suppurating process had been finished, and the discharge had continued for some days, a temporary alleviation was experienced, but only to await a repetition of the same scene, for these collections occurred from five to nine times a year: when the suppuration was going on and consequently the tumour increasing, he found walking nearly impracticable. For the last two months he had found a chillness a little after mid-day, which was succeeded by a slow fever that terminated in perspiration after midnight: his appetite was destroyed, and such the state of general debility to which he was reduced, that life itself was scarcely desirable. He remarked that the habitual use of Opium had so impeded the peristaltic motion that this function could now only be performed by artificial means and that he then suffered beyond expression."

Upon inspecting the diseased part, I found the ulcer in a state of tumefaction, and as this obstructed the internal examination, I made an incision through the whole diameter of the swelling. A small portion of blood, fœces and ill digested pus were discharged. All these circumstances rendered the nature of the disease sufficiently manifest, and upon examining the internal surface of the rectum, an opening through its coats was discovered about three inch-

es above its extremity. Under these impressions, the operation for the radical cure was immediately proposed.—To this the patient objected and obstinately persisted in a determination never to submit to the use of the knife. He added (in justice to the practitioners whom he had previously consulted) that they had all given him the same advice, and that he only wished me to say candidly, whether or not he could be cured without the operation? I answered in the negative. He then declared that he would consult some other persons, and that should they concur in the opinion already given, he would resign himself to his fate, and linger out a miserable existence with christian fortitude. He added, that I was at liberty to make any experiment, and that he would thank me to take his case into consideration till the next day.

It is sometimes a mortifying consideration that the state of the body, or the want of energetic remedies, renders our best endeavours abortive, but my situation in this case was doubly embarrassing, because I was irrevocably interdicted the use of an established and effectual remedy.—Again importuned by the patient, and being compelled to make some effort, I consoled myself with the reflection *that I was a Physician*, and therefore destined to submit to all the vexations, that ignorance, prejudice, fear, and all the untoward passions could suggest. The desperate situation of this patient, afforded ample room for theoretic speculation. During my reflections on this case, several facts were recalled to my mind, that seemed to conspire to establish a common principle.

One of my patients who had been salivated the preceding autumn for the yellow fever, had been effectually cured of a fistulous ulcer, on the inside of one of the buccinator muscles. This ulcer had been troublesome for two years,

and had resisted many local applications. The patient had conceived it to have originated in venereal infection, but after a strict scrutiny, I was satisfied that it arose from a common phlegmon, which had first arose on the external part, but having been prematurely opened, afterwards suppurated internally.

I had witnessed the cure of an old indolent ulcer that had arisen from the hemorrhoids by an accidental salivation. I knew that dissections of bodies that had taken much mercury had discovered that adhesions were sometimes found that could not be accounted for from the known nature of the diseases of which they had died.

I had seen many instances where the tongue had adhered to the inside of the cheeks, during a long protracted mercurial ptyalism.*

I had often observed the production of healthy granulations in chronic ulcers of the legs and other parts, by the use of mercury.

I had long been sensible of the gigantic powers of mercury in rendering sensible the latent excitability in all cases of *chronic indirect debility.*

Moreover it appeared to me possible that the anatomical structure of the part affected, might not oppose by its mechanical action, such serious objections to the healing of an ulcer, as had been generally believed. Under these impressions I informed the patient that I had but one medicine to propose, which would be more tedious and nearly as painful as the operation, and that I did not anticipate more

* This circumstance has repeatedly happened in the Marine Hospital under my direction, where mercurial salivation is, necessarily, a remedy frequently employed. In more than one instance, I have seen the whole internal fauces so firmly adhering to the gums, that the finger could not be thrust into the mouth farther than the *dentes canini* on either side. Ed.

than a suspension of the symptoms, if so much. He assented without hesitation, and the course was immediately commenced by the use of inunction and the blue pill. In ten days about five ounces of the ointment and twenty grains of the pill had been used, and he complained of a tenderness of his gums, and sore throat. In five days more a considerable ptyalism was excited. It was remarkable that so soon as the salivary discharge began, the pain, before excruciating, began to decline, and in five days he omitted the use of the opium. The mercurial action was not interrupted and continued five weeks without diminution. About ten days after the first friction, the colour and consistence of the discharge began to improve, and in a few days a well digested pus was discharged. The effect of the remedy was particularly manifest in the external opening: instead of callous ragged edges, fine florid healthy granulations appeared, and in two months from the commencement of the course, the external ulcer was healed. The patient's health improved daily, and in less than three months his usual health was re-established.

I saw my old patient in March 1802, and he had experienced no symptom of his former malady. It has been alledged by some of the faculty, to whom this case has been mentioned, that these ulcers were venereal. There is not the least cause for such a suspicion. The situation of the patient, and the inflexibility of his religious principles rendered him equally unsusceptible of such a disease, and incapable of deception.

CASE II.

In August 1803 I was consulted by E. W. aged twenty-nine. As she was *una sororum veneris zona soluta*, I suspected her disease to have originated from venereal infection; but after minute examination, I was satisfied my suspicions were not well founded. She had been cured of a

chancre sometime before her indisposition by a physician who was too well versed in such cases, to leave her uncured. She informed me that she suffered much from an hemorrhoidal affection, for two or three years. Having examined the external parts, I discovered an open ill conditioned ulcer, near the rectum. She informed me that this had appeared about six months before, after a swelling and suppuration. A thin, dark, ichorous discharge, and a portion of the alvine excretions, continued to pass through this opening. Upon examining the internal parts, I discovered two small apertures in the rectum, that communicated, as well with each other, as with the internal opening.—Her health was much impaired: her appetite was indifferent, and her body much emaciated. I proposed the operation, to which she objected, and insisted that she might be put under a mercurial course, alledging that she had derived her complaint from the venereal disease. As my arguments in favour of the operation were unavailing, I submitted to her request, entertaining no other hope of success than a recollection of the termination of the preceding case, which I considered as a solitary instance of the power of mercury in this disease.

For some days she had been affected with a slight intermittent, and such was the irritability of the stomach, that it rejected even the mildest form of mercury. The ointment was therefore resorted to and assiduously applied for nearly six weeks before a ptyalism could be produced, though half an ounce a day had been used. About the end of the sixth week a profuse discharge from the salivary glands took place, and continued nearly four weeks, when it gradually declined spontaneously, the ointment having been omitted when the discharge became profuse. The progress of the cure was so similar to that of the other case, that it would be superfluous to detail the particulars. I saw the patient eight months after I ceased to visit her, and she had suffered no relapse,

but enjoyed as good health as persons of her habits usually do.

As the facts contained in the preceding cases are accurately stated, no rationale of the modus operandi of Mercury can alter them; therefore there can be no impropriety in hazarding a conjecture. What becomes of the diseased parts, that must die before the process of regeneration can be performed?—Does the medicine stimulate the lymphatics to absorb them? Is not this function essential to the deposition of the fibrine of the blood which renovates the ulcer, by reducing it to the state of a recent wound? Do not the divided parts coalesce by the same process that we call the first intention, or in other words, adhesive inflammation? Does the blood become more highly oxygenated by the use of mercury, and thereby better adapted to this important process?

I wish to be understood, that I do not propose mercury in this disease, to the exclusion of the radical cure, which is generally to be preferred; but with due deference to the faculty, submit to their superior judgment, whether circumstances may not occur, to render the operation impracticable, and when this remedy may therefore be successfully imitated.

Be pleased to accept my sincere wishes for the success of the Recorder, and believe me,

Dear Sir, Yours very respectfully,

NATHANIEL POTTER.

Dr. Watkins. June 1808.

AN EXPERIMENTAL ENQUIRY

INTO THE

NATURE AND PROPERTIES

OF

INDIGENOUS MEDICINAL PLANTS.

By the Editor.

[In the Philadelphia Medical Museum, will be found, a paper on this subject, which it was the intention of the Editor to have pursued, in that very valuable work; but numerous private engagements, added to a change of residence, which soon after took place, necessarily interrupted his experiments, and consequently his farther correspondence on the subject with Dr. Coxe. Still impressed, however, with the vast importance and utility of the enquiry, his experiments have been since renewed, and as far as they can be continued, their results shall be given in the Recorder.]

I. BETONICA—a genus of the Gymnospermia order and Didynamia class of Plants. The species under consideration is thus described by Linneus—*Spica interrupta: corollæ galla integra; labii lacinia intermedia emarginata, calicibus glabriusculis*—known among the common people by the name of Wood betony. It is to be found growing in the woods in every part of this state, and has been long a celebrated remedy among the old women in many disorders; but more particularly in those attended with slow fever and other symptoms of a relaxed system. In the first case in which it was used, the patient had long laboured under an affection of the breast, without cough, but attended with

difficult respiration, sick stomach, and loss of appetite.—After the use of many remedies without the slightest benefit, I was induced to made trial of this plant—For this purpose it was gathered in large quantities and dried in a garret defended from the immediate action of the sun, as all plants lose more or less of their virtues when exposed to its influence after being cropped. To a handfull of the dried leaves and stems was added, one quart of boiling water, of which, when cold, the patient was directed to drink a tea-cup-full three or four times a day. In less than three days he felt much relieved from the oppression in his breast, and began to eat with better appetite—and a continuance of the remedy for ten days longer, removed every symptom of disease.

The second trial was made in a case of long protracted Intermittent Fever of the Quartan type, in which the Peruvian Bark, Zinc, Arsenic, and Mercury, had been successively employed without success. As the stomach of the patient was unable to bear large quantities of liquid, it was thought advisable to try the Betonica in substance—for this purpose it was reduced to a fine powder, and exhibited in the commencement in doses of one scruple three times a-day, which doses, upon finding they produced no unpleasant effects, were afterwards increased to half a drachm, four times a-day. Three paroxysms of the fever, only, recurred after the use of this medicine, and the patient is now daily recovering his former health and vigour.

II. Malva-Prostrata—*Caule humifuso angulato, foliis palmato-multifidis, fructu glabro.—Lin.* This plant is known most generally in the country parts of this state by the name of Batchelor's Buttons—the seed in some measure resembling a shirt button. It grows spontaneously in most soils, but seems to flourish best in gardens and around old houses. It bears a small white flower, intermixed with purple, which appears generally about the middle of June.

Almost all the species of Mallow have been heretofore celebrated as emollients—but from some cause or other their use has been lately undeservedly neglected. From the experience which I have had of the virtues of this plant, I may safely venture to pronounce it one of the most useful remedies of the Materia Medica. In one case of Schirrus of the Testis, and in six cases of enlargement, where mercurial frictions, fomentations, and a whole host of applications had been made in vain, radical cures were performed by Cataplasms of the Malva prostrata. These cataplasms were made either by bruising the green plant with the white of eggs; or mixing a strong decoction of it with corn flour.—Frequent success has so strengthened my confidence in it's powers, that no other application is now directed in any case of swelled testicle which comes under my care.

III. SAMBUCUS—Ebulus—*Cymis tripartitis, stipulis foliaceis, caule herbaceo.—Lin.* Dwarf Elder. The flowers of this plant, which make their appearance about the last of June and beginning of July, are highly serviceable as an external application in inflammation of the eyes. I have used them with invariable success in many obstinate cases of Opthalmia, both internally and externally—to be used externally, a weak decoction of the flowers should be made, with which the eyes should be bathed repeatedly during the day—a stronger decoction of the same, taken to the quantity of six or eight ounces, proves a safe and effectual purgative, unproductive of that nausea so frequently created by other cathartic medicines.

IV. SANICULA—Marilandica.—*Flosculis pedunculatis hermaphroditis sessilibus.—Lin.* Self heal. This plant, as its name imports, was formerly held in great estimation for its healing virtues, particularly in recent, dangerous wounds, but has been long laid aside as perhaps undeserving its appellation.—For my knowledge of its virtues I am indebted

to Dr. John Crawford, who recommended it to me as having performed wonders in the cure of several inveterate cases of Syphilis, under his management. My slight experience of its nature will not perhaps justify me in calling it a certain remedy ; but to use the words of an ancient author on another occasion, " had I the placing of it, it should stand in the fore-front of the very best of" plants. The following are the cases and manner in which it was used ;— I pretend not to offer an opinion as to the modus operandi— it suffices that the wished for effect is produced.

A. M. aged about thirty had been labouring under Syphilitic symptoms for 18 months—when he was admitted into the Hospital, (about three months previous to the time of this experiment) the whole internal fauces were ulcerated—the azygos uvulæ and velum palati entirely obliterated, and immediately below the inferior ridge of the right orbit near the os unguis was seated a small ulcer which alternately discharged its contents externally and into the right nostril :— the patient complained of excessive pain through the whole course of the meatus auditorius; his shins were filled with painful nodes, and his sufferings altogether so constant and acute as to deprive him of a moment's peace. A strict mercurial course was ordered, and persisted in, until ptyalism was produced : this was suffered to continue three weeks— at the end of which time the ulcer in the throat appeared to be considerably healed, but no abatement of the other symptoms had taken place—The Nitric Acid was now resorted to as a last resource : under its use the ulcer in the throat was entirely healed— that under the corner of the eye appeared at times to be perfectly healed, but would soon inflame and discharge again—this was the case six or eight different times— when an external cicatrisation had taken place, pus mixed with blood, and small pieces of the Ethmoid bone, would

be discharged from the nose. The acid was long continued without much apparent benefit ; and it was again laid aside for the Mercury. To give the patient some few temporary respites from his sufferings it was found necessary to combine with this, large quantities of Opium, which however from repetition, soon lost its narcotic effects, and the poor fellow was constrained to bear the most severe pain in all his members without a hope of relief. In this state of his disease, the *Sanicula* was recommended to me, and eagerly caught at as a *dernier* hope by the patient as well as myself. A handfull of the entire plant, was thrown into a pint and an half of boiling water, and he was directed to take a cup full of the infusion three times daily—on the second day he experienced a considerable abatement of the pain and could sleep several hours uninterruptedly—on the fourth day, the pain had entirely left his shins, the nodes were fast disappearing from their surface, and he felt relieved from the paracusis which had been for many months a distressing symptom—such effects urged the propriety of continuing the medicine and in little more than a week, the cure was completed.

The second was also a case of long standing Syphilis, but none of the symptoms were so distressing as in the former, though all were equally invincible by the common modes of treatment. The Sanicula was here exhibited with the like happy effects.

Soon after these successful trials of the *Sanicula*, in one of his searches after plants, the Editor met with an old negro man, collecting large quantities of this plant, and was induced to question him as to its uses ; his account was, that for many years past he had been in the habit of curing persons of the *foul disease* with this herb, who had been given over by their physicians—that his manner of using it was to make a strong decoction and strain it off into bottles, into each bottle he generally put about four ounces of salts—

prepared in this way it might be kept from one year to another, and that in performing a cure of the very worst cases he has never had occasion to use more than the second bottle. He further added, that there was but the one spot in the vicinity of Baltimore where it could be found—this spot is a peninsula, formed by a creek, which empties itself into the Patapsco, the river itself, and a cove which makes out of the river a few miles below the city—the ground is hilly, and the soil clay and gravel—there are several spots of rich marshy ground; but the Sanicula is confined to the dry gravelly hills, where it grows to the height of two and an half to three feet.

MEDICAL AND PHILOSOPHICAL

REGISTER.

MEDICAL EXAMINATION.

At the meeting of the Medical Board of Examiners for the Western Shore of Maryland, in June 1808, Licences to practice Physic and Surgery were granted to the following gentlemen:

William B. Locke
Sohn Sparrow
John Brereton
John T. Deaver
John Turner
Samuel Johnson
Nehemiah Waters
William Sotheron.
Charles G. Worthington
Dennis Claude
John W. Dorsey
Matthias Hammond
John M. Lawrence
William W. Dennington
Jesse Hyde Ray

An Essay on the Means necessary to be employed for correcting and rendering wholesome the Atmosphere of Large Cities. Read before the Philadelphia Medical Lyceum, October 28th, 1807. By ELIJAH GRIFFITHS, M. D.

THE frequent appearance of malignant fever, in certain local districts, and its suddenly disappearing when cold weather sets in, have been considered by many able observers an unequivocal evidence of the domestic origin of that disorder. Others have considered the locality of its operation entirely dependent on the locality of the medium that gives the contagious matter currency. The above opinions have many and powerful advocates. They will most likely long divide the scientific, and, with them, the civilized world.

One thing, however, all parties agree in, that is, that malignant fever can neither originate nor spread in a pure atmosphere; but, like the typhus fever, common to dirty, crowded and badly ventilated places, it perishes spontaneously in an unadulterated atmosphere. This is certainly contrary to the undeviating course of specifically contagious diseases, which go on uninterrupted in every climate and season, and under every different circumstance of air.

It is the intention of this essay to recommend the adoption of certain domestic arrangements, calculated to render the atmosphere of crowded cities so pure, that malignant fevers can neither originate nor spread in them. This, if it can be accompliished, will, I presume, meet the approbation of all parties, as it will implicate the opinions of none.

The contents of privies appears to be the most abundant source of offensive air, and the sole cause of bad pump water in our city. In order to remove this evil, we must construct common sewers in the middle of the streets and alleys; a small sewer will establish a communication between the privy and common sewer; two privies may be erected

at the end of one small sewer. A trunk under the bench of the privy, two feet wide, and three deep, will be sufficient; six inches of water should be admitted from the hydrant every morning, and be discharged between nine and eleven o'clock every night, by drawing a flood-gate constructed for that purpose: with the addition of a cover to the openings in the benches of privies, we should be no longer annoyed from this quarter. Through the same medium the offal of the kitchen may be discharged, which will take away a very considerable mass of perishable matter.

The common sewers can be constructed on a very economical plan, by sinking a trench in the middle of the streets, five feet wide and six feet deep. Pave the bottom of it well, and raise a brick wall, one foot thick and three feet high, on each side; cover the whole with flag stones cut straight at the sides, and applied close together; afterwards plaster with lime and sand, and pound the earth well down.

By carefully removing the contents of the present privies, after adopting the above regulations, we shall restore the pump water to its pristine purity; and this must be very desirable, when we consider the increasing population of the west end of the city, with the addition of the new Bridewell, the filth of all which will find its way into the Schuylkill, only one square from the bason that supplies the city with water, and may soon find its way into our tea-kettles.

The docks of Philadelphia may be considered as so many immense laboratories of noxious gases. All that is necessary to remove the evil, will be to wharf so far into the river, that no part of the bottom of the dock will be left bare at low water. Wharves add to the unhealthiness of the air, by being constructed of, and partially filled up with perishable vegetable matters. They ought to be constructed of stone; but, as this will hardly be accomplished, no perishable matter should be suffered to enter into the composition of made ground on the margin of the river. Ships often annoy a

whole neighbourhood by discharging putrid bilge water; they ought to be cleansed in the middle of the river, and never nearer the city, on any condition whatever.

Places of interment have long been considered dangerous to health in large cities; but they have been as carefully retained as if mankind was determined to be surrounded by those sacred but poisonous relics, although pregnant with the seeds of inevitable destruction to the survivors. The remedy is simple: let the dead be interred without the city in future, and the present burying-places converted into groves of trees, which will conduce to the health and beauty of the city.

Badly cured provisions, perishable articles of commerce, and damaged goods of every description, may be disposed of without the city, until inspectors of such nuisances shall judge they may be safely admitted.

Of all the domestic manufactories, that of soap is the most exceptionable. It arises from the large quantity of half putrid animal matter collected and retained through the hot months. The fœtor may be corrected by the addition of ley or soda to the raw materials, and keeping it in a deep cellar with a little ice. The offensive fluids collected in this, in distilleries, breweries, sugar-refineries, &c. may be conducted off through the sewers into the river, while the more solid offal may be carted out of town every night through the hot season. These regulations would not be oppressive to the manufacturer, at the same time they would be very comfortable to the citizens, and conducive to general health. The same measures will be necessary for preventing manure, collected about stables, from contaminating the air and water in the neighbourhood.

Street dirt, and other foul matters accumulated in large masses near the city, have a bad effect in hot weather, when the wind blows from that direction. Would it not be better

for the city commissioners to contract with the neighboring farmers to remove this manure to their farms, at the stated times of collecting it in heaps? This would save the expence of carting to the commons. Dirty, narrow alleys, where vast numbers of poor people are crowded together in small tenements, and where the vices of civilization are found combined with all the uncleanliness of savages, may be considered as so many hot-beds of pestilence, in sickly seasons. I know of but one remedy for the evil, which will be to erect comfortable barracks on the airy part of the commons, where they may be invited to reside rent free, and no longer offend the senses by their present conduct.

The walks and streets in the suburbs ought to be levelled, the curb-stones planted, and the gutters paved with brick, to enable the scavengers to keep them clean, and free from stagnant water, mud, &c.

No one of the above-enumerated causes are capable of doing much mischief singly; but it is the combination of them, that, by its steady operation on the olfactory nerves of the citizens, has almost paralyzed and rendered them insensible to the most noxious fœtors. It is this combination that assails the senses of the stranger to cities with such violence as to confound him, and excite astonishment that pestilence has not depopulated the place; and it is this combination, joined with great heat and moisture, that alone constitutes that atmosphere, in which malignant bilious fever delights, dwells, and flourishes.

These gases rise in the form of exhalations with the early heat of the day, and are precipitated by the cool evening air, to the great hazard of all persons exposed at that time. In clear, hot weather, the most danger is to be apprehended from sun-rise till eight o'clock in the morning, and from sun-set till ten in the evening; but in hot and damp weather, these gases seldom rise high, and then are very dangerous to health.

It is these noxious effluvia, joined with heat, and heavy, foggy, weather, that, acting as remote cause, predisposes the body to sickness, and only requires some indiscretion, which, by acting as an exciting cause, brings on disease.

To the above causes of predisposition to disease may be added, the bad condition of pump water in large cities.—The constant use of water containing so large an admixture of foreign matter, must be pernicious and debilitating.—Strangers find their stomachs and bowels very much disordered soon after drinking freely of it.

The expence incident to the execution of any plan of cleanliness like the above, may deter many from countenancing it; but when we recollect the great number of valuable citizens that have fallen premature victims to the ravages of malignant fevers; when we recollect the expence, inconvenience, and confusion consequent on sudden flight from our homes; and when we consider the total loss of all business for the season in which that fever appears among us, I am induced to hope the attention of our citizens will be directed to their true interests, which will be some plan to correct the state of the atmosphere of our city, and thereby prevent those evils in future.

Phil. Med. Mus. No. 17.

In an old book of prescriptions entitled *Pharmacopœia Extemporanea*, written nearly a century ago by Thomas Fuller, M. D. is the following eulogy on the virtues of the Balsam Copaiba. The editor is induced to insert it, from a conviction that this medicine may be used to a much greater extent than has been hitherto the common practice.

"*Copayba*, I know," says Dr. Fuller, "by great experience, to be a most noble medicament, and had I the placing of it, it should stand in the forefront of the very best of Balsams. But because it's not commonly known so

well as it deserves, I shall not grudge a little pains in setting forth and briefly explaining some of its properties.

It hath a bitter, hot, terebinthine taste, very penetrating and durable in the mouth; and though it seems to be of the turpentine class, yet it gives not the violet smell to urine, but imbues it with a manifest bitter taste, and wonderfully takes off the muriatic saltness of it, and of the serum of the blood, and of the saliva.

It impresseth a balsamic character on the mass of blood; cures its scorbutic, rancid, and putredinous cachexy: is prevalent (both externally and internally) against ulcers, the palsy, gout, weakness and pains of the back; as also fluor albus and gonorrhæa.

It in a wonderful manner deterges the reins, ureters and bladder, when obstructed with sand, *mucus* or *pus*, strengthens them when relaxed, and heals them when ulcerated.

It provokes urine, extinguishes its heat, and cleanses off its bloody, foul, and purulent contents more effectually than any thing I ever yet met with. A patient of mine (now living) who voided mere chyle instead of urine, and not one drop of water with it, was restored to perfect health and soundness by the use of this medicine.

It may very justly be accounted *the best of all thoracics*; deterges the bronchia and vesicles, recovers the tone of the lungs, heals their breaches, and (as I have thought) even dissolves the tubercula cruda; for I have seen where this balsam alone hath (beyond all expectation) *perfectly cured* dry, deep coughs, that appeared horribly dangerous, and manifestly threatened a consumption: and I have more than once cured with it coughing up of blood and *pus* in frightful quantities. At this very time of writing, I have a poor workman, that is an eminent instance of it.

And notwithstanding it is intensely bitter, and manifestly hot, yet (which is an admirable advantage of it) I have found it mighty agreeable to hectic persons, and rather abates than augments their heats, as one might fear it would: The reason of which is, I suppose, because it so powerfully subdues saltness and acrimony, and obliterates putredinous inquinations.

If it be given to two or three drams, in the form of a white potion, it purges like turpentine.

Some cry it up for a diarrhæa and dysentery; but of these virtues I know not much yet by experience.

But to conclude, this mixture* cannot be accused of any inconvenience, except you'll blame it (forsooth) because, though it's an honest benign medicine, yet it's not very complaisant to the palate.

Let a spoonful be given every night and morn daily for a long time together. If it loosen the belly more than you would desire, either lessen the dose, or now and then at times omit it."

SMALL-POX.

The following instances of the ravages of this dreadful malady are taken from a London Paper.

"Only a few weeks since, Mr. Mansfield, No. 9, Bishop's-head-court, Gray's inn lane, lost all his four children by the small-pox.

"At the school for the indigent blind, in St. George's fields, two-thirds of the objects admitted into that charity have lost their sight by the small-pox.

* The following is the form of its use, as given by Dr. Fuller. "Take Balsam of Capive half an ounce; dissolve it in the yolks of two eggs, and add white syrup two ounces; white wine eight ounces; at last strain it."

"At Lime Regis, in Dorsetshire, a gentleman not being able readily to procure vaccine matter, insisted on having his child inoculated with the small-pox, the contagion was thereby communicated to the inhabitants, and the mortality was so great in this small town, that *sixty* persons lost their lives in a few weeks." In addition to these distressing accounts, the reports of deaths in Philadelphia for some months past have contained a weekly average of six or eight unfortunate *victims to vulgar incredulity*; the editor feels warranted in using this expression when he reflects that there is scarcely a town on the continent of which, some of the physicians have not offered their services for vaccine inoculation without expectation of recompence, and that there has *not yet been one solitary instance wherein small-pox has taken place in those previously affected with the* true vaccine *disease.* To the thousand proofs which we may daily see of the truth of this, the editor can add one more, which he trusts will not leave a doubt of the beneficial influence of vaccination.

Early in May last, three seamen who had been seized during their passage from Holland with the natural small-pox, were admitted into the Marine Hospital; a few days after which the disease broke out on a patient who had lately arrived from Philadelphia; at this time among the patients in the Hospital, one only was to be found who had never had the infection. He was immediately vaccinated, and as soon as it was discovered that the infection had taken place, he was ordered to associate constantly with the small-pox patients. Three of the editor's children who had been vaccinated, one in each of the three preceding years, were likewise almost daily carried by him to the Hospital for the purpose of assuring himself of their exemption from liability to take the small-pox. Several other children in the vicinity of the Hospital were vaccinated and daily brought to be examined—during this period one of the four small-pox

patients died in a state of the most inconceivable horror—they were all visited and regularly attended by a young gentleman who had been vaccinated five years before. Of these *all* escaped infection, so that we have here a proof of safety at every period of five years after vaccination.

EDITOR.

The following account of the extraordinary sufferings of a Lady from the confluent small-pox, is copied from an old Annual Register for 1758. *Can it be possible, after a knowledge of such horrid results, that mankind will still hesitate to employ the only means which heaven has given them to arrest the devastating progress of this cruel malady, to ward off from their helpless offspring a fate like this!*

"IN the course of this disease, during which the lady was attended by the late sir Hans Sloane, several threatening symptoms appeared, which, however, were at length overcome; and the patient, being thought out of danger, took several doses of such purgative medicines as are usually administered in the decline of the disease, without any bad consequence.

But in the evening of the day on which she had taken the last dose that was intended to be given her on that occasion, she was suddenly seized with pains and convulsions in the bowels; the pain and other symptoms became gradually less violent, as the force of the medicine abated, and by such remedies as were thought best adapted to the case, they seemed at length to be intirely subdued.

They were, however, subdued only in appearance; for at eleven o'clock in the forenoon of the next day they returned with great violence, and continued some hours; when they went off, they left the muscles of the lower jaw so much re-

laxed, that it fell down, and the chin was supported on the breast. The strength of the patient was so much exhausted during this paroxysm, that she lay near two hours with no other sign of life than a very feeble respiration, which was often so difficult to be discerned, that those about her concluded she was dead.

From this time the fits returned periodically every day, at about the same hour. At first they seemed to affect her nearly in the same degree; but at length all the symptoms were aggravated, the convulsions became more general, and her arms were sometimes convulsed alternately; it also frequently happened, that the arm which was last convulsed remained extended and inflexible some hours after the struggles were over. Her neck was often twisted with such violence, that the face looked directly backwards, and the back part of the head was over the breast; the muscles of the countenance were also so contracted and writhed by the spasms, that the features were totally changed, and it was impossible to find any resemblance of her natural aspect by which she could be known. Her feet were not less distorted than her head, for they were twisted almost to dislocation at the instep, so that she could not walk but upon her ancles.

To remove or mitigate these deplorable symptoms, many remedies were tried, and, among others, the cold bath; but either by the natural effect of the bath, or by some mismanagement in the bathing, the unhappy patient first became blind, and soon afterwards deaf and dumb. It is not easy to conceive what could increase the misery of deafness, dumbness, blindness, and frequent paroxysms of excruciating pain; yet a very considerable aggravation was added; for the loss of her sight, her hearing, and her speech, was followed by such a stricture of the muscles of her throat that she could not swallow any kind of aliment, either solid or liquid. It might reasonably be supposed that this circumstance, though it added to the degree of her misery, would

have shortened its duration ; yet in this condition she continued near three quarters of a year, and during that time was supported, in a very uncommon manner, by chewing her food only, which having turned often, and kept long in her mouth, she was obliged at last to spit out. Liquors were likewise gargled about in her mouth for some time, and then returned in the same manner, no part of them having passed the throat by an act of deglutition : so that whatever was conveyed into the stomach, either of the juices of the solid food or of liquids, was either gradually imbibed by the sponginess of the parts, which they moistened, or trickled down in a very small quantity along the sides of the vessels.

But there were other peculiarities in the case of this lady, yet more extraordinary. During the privation of her *sight* and *hearing*, her *touch* and her *smell* became so exquisite, that she could distinguish the different colours of silk and flowers, and was sensible when any stranger was in the room with her.

After she became blind, and deaf, and dumb, it was not easy to contrive any method by which a question could be asked her, and an answer received. This, however, was at last effected, by talking with the fingers, at which she was uncommonly ready. But those who conversed with her in this manner, were obliged to express themselves, by touching her hand and fingers instead of their own.

A lady who was nearly related to her, having an apron on, that was embroidered with silk of different colours, asked her, in the manner which has just been described, if she could tell what colour it was? and after applying her fingers attentively to the figures of the embroidery, she replied, that it was red, and blue, and green, which was true, but whether there were any other colours in the apron, the writer of this account does not remember. The same lady having a pink-coloured ribbon on her head, and being willing still farther to satisfy her curiosity and her doubts, asked what colour

that was? her cousin, after feeling some time, answered that it was pink colour; this answer was yet more astonishing, because it showed not only a power of distinguishing different colours, but different kinds of the same colour; the ribbon was not only discovered to be red, but the red was discovered to be of the pale kind, called a pink.

This unhappy lady, conscious of her own uncommon infirmities, was extremely unwilling to be seen by strangers, and therefore generally retired to her own chamber, where none but those of the family were likely to come. The same relation, who had by the experiment of the apron and ribbon discovered the exquisite sensibility of her *touch*, was soon after convinced by an accident, that her power of *smelling* was acute and refined in the same astonishing degree.

Being one day visiting the family, she went up to her cousin's chamber, and after making herself known, she intreated her to go down, and sit with her among the rest of the family, assuring her, that there was no other person present; to this she at length consented, and went down to the parlour door; but the moment the door was opened, she turned back, and retired to her own chamber much displeased, alledging, that there were strangers in the room, and that an attempt had been made to deceive her. It happened, indeed, that there were strangers in the room, but they had come in while the lady was above stairs: so that she did not know they were there. When she had satisfied her cousin of this particular, she was pacified; and being afterwards asked how she knew there were strangers in the room, she answered, by the smell.

But though she could by this sense distinguish in general between persons with whom she was well acquainted, and strangers, yet she could not so easily distinguish one of her acquaintance from another without other assistance. She

generally distinguished her friends by feeling their hands, and when they came in they used to present their hands to her, as a means of making themselves known; the make and warmth of the hand produced in general the differences that she distinguished, but sometimes she used to span the wrist and measure the fingers. A lady with whom she was very well acquainted, coming in one very hot day, after having walked a mile, presented her hand, as usual; she felt it longer than ordinary, and seemed to doubt whose it was; but after spanning the wrist, and measuring the fingers, she said, "It is Mrs. M. but she is warmer to-day "than ever I felt her before."

To amuse herself in the mournful and perpetual solitude and darkness to which her disorder had reduced her, she used to work much at her needle; and it is remarkable, that her needle work was uncommonly neat and exact; among many other pieces of her work that are preserved in the family, is a pin-cushion, which can scarce*ly* be equalled. She used also sometimes to write, and her writing was yet more extraordinary than her needle-work; it was executed with the same regularity and exactness; the character was very pretty, the lines were all even, and the letters placed at equal distances from each other; but the most astonishing particular of all, with respect to her writing, is, that she could by some means discover when a letter had by some mistake been omitted, and would place it over that part of the word where it should have been inserted, with a caret under it.—It was her custom to sit up in bed at any hour of the night, either to write or to work, when her pain or any other cause kept her awake.

These circumstances were so very extraordinary, that it was long doubted whether she had not some faint remains both of hearing and sight, and many experiments were made to ascertain the matter; some of these experiments she accidentally discovered, and the discovery always threw her in-

to violent convulsions. The thought of being suspected of insincerity, or supposed capable of acting so wicked a part as to feign infirmities that were not inflicted, was an addition to her misery which she could not bear, and which never failed to produce an agony of mind not less visible than those of her body. A clergyman, who found her one evening at work by a table with a candle upon it, put his hat between her eyes and the candle, in such a manner that it was impossible she could receive any benefit from the light of it if she had not been blind. She continued still at her work, with great tranquillity, till putting up her hand suddenly to rub her forehead, she struck it against the hat, and discovered what was doing; upon which she was thrown into violent convulsions, and was not without great difficulty recovered. The family were, by these experiments, and by several accidental circumstances, fully convinced that she was totally deaf and blind, particularly by sitting unconcerned at her work, during a dreadful storm of thunder and lightening, though she was then facing the window, and always used to be much terrified in such circumstances; but Sir Hans Sloane, her physician, being still doubtful of the truth of facts, which were scarce*ly* less than miraculous, he was permitted to satisfy himself by such experiments and observations as he thought proper; the issue of which was, that he pronounced her to be absolutely deaf and blind.

She was at length sent to Bath, where she was in some measure relieved, her convulsions being less frequent, and her pains less acute; but she never recovered her speech, her sight, or her hearing, in the least degree.

Many of the letters, dated at Bath, in some of which there are instances of interlineations with a caret, the writer of this narrative hath seen, and they are now in the custody of the widow of one of her brothers, who, with many other persons, can support the facts here related, however wonderful, with such evidence as it would not only be injustice, but folly, to disbelieve."

An abstract of Patients admitted into the Marine Hospital, from the 1st January to the 30th June, 1808, with their diseases.

Diseases.	*No. of patients*	*Died*	*Cured.*	*Remain*
Abscess	2	—	1	1
Asthma	3	1	2	—
Burns	2	—	2	—
Catarrh	15	—	12	3
Consumption	4	1	—	3
Diabetes	1	—	1	—
Diarrhæa	10	1	9	—
Dropsy	15	2	5	8
Dislocation	1	—	1	—
Dysentery	7	1	5	1
Dyspepsia	1	—	—	1
Epilepsy	2	—	2	—
Erysipilas	2	—	1	1
Fever, Intermittent	3	—	2	1
—— Nervous	1	—	1	—
Fracture	2	—	2	—
Gravel	1	—	—	1
Hernia	1	—	—	1
Hemorrhage	2	—	2	—
Inflammation of the Liver	5	—	1	4
Influenza	3	—	3	—
Insanity	3	—	1	2
Palsy	1	—	—	1
Pleurisy	1	—	1	—
Rheumatism	5	—	3	2
Schirrous Liver	4	—	2	2
Scrophula	1	—	1	—
Scurvy	15	—	12	3
Small-Pox, natural	4	1	3	—
Syphilis	65	—	15	50
Ulcers	24	1	9	14
White Swelling	1	—	—	1
Total Number	207	8	99	100

From a statement of deaths, &c. in the city and liberties of Philadelphia, from the 2d January 1807 to the 2d January 1808, published in the Philadelphia Medical Museum, it appears that there died in that period 2045 persons; of whom 306 died of consumption of the lungs, and 189 of Cholera.

The following arrangement of officers in the College of Physicians and Surgeons in the city of New York, has lately been made by the regents of the university.

Nicholas Romayne, President
Samuel L. Mitchill, } Vice Presidents
Hugh Williamson, }
Archibald Bruce, Register.
John D. Gillespie, Treasurer.

CENSORS.

James G. Graham, of Ulster County.
Peter C. Adams of Greene.
Westell Willoughby jun. of Herkimer.
Lyman Cook, of Westchester.
David R. Arnell, of Orange.
John Stearns, of Saratoga.
Henry Van Solingen, of New York.
Samuel Torbert, of do.
John D. Jacques, of do.
John C. Osborn, of do.
Andrew Hunt, of do.

PROFESSORS.

Nicholas Romayne, Professor of the institutes of medicine.
Samuel L. Mitchill, Professor of Natural History and Botany.

Edward Miller, Professor of the Practice of Physic.
William James M'Neven, Professor of Midwifery.
Benjamin De Witt, Professor of Chemistry.
Archibald Bruce, Professor of Mineralogy.
John A. Smith, Professor of Anatomy and Surgery.

Med. Rep. No. 43.

Thermometrical Observations.

From the 26th June to the 3d July the average height of the mercury in Farenheit's thermometer placed in a large airy entry, was at 83°. On the 27th June and 1st July it stood at 98° from 8 A. M. to 6 P. M. Placed in the open air under the influence of the sun, the mercury very speedily rose to 120°. It is remarkable, that by the observations of several intelligent gentlemen the 26th June for four years past has been the hottest day in the year. During this oppressive weather, *nine* persons died suddenly in the streets of Baltimore. Two of these whom I had an opportunity of seeing, retained a heat of 98° on the surface for 24 hours after the deprivation of life. *Editor.*

PRIZE MEDALS,

Offered by the Humane Society of Philadelphia.

At a meeting of the managers on the 8th. inst. the decision of the Medical Professors of the University of Pennsylvania was received, containing information that they have carefully examined the three dissertations for the Prize Medals, and that "they are unanimously of opinion that neither of them are entitled to the Medals, as they do not appear to contain any *original* observations;" at the same time remarking that they are by no means destitute of merit as to arrangement and stile.

The Managers adopted their decision, and are again induced to offer,

For the best dissertation on the means of restoring to life, persons apparently dead from drowning, AND MORE EFFECTUAL THAN ANY YET IN USE, a GOLD MEDAL, value of one hundred dollars.

For the second best a piece of plate, value fifty dollars.

The dissertation to be sent to the secretary of the society (post paid) by the first of January, 1810.

They may be written in the English, French or Latin languages; to be accompanied with a sealed paper, containing the Author's name and place of residence, which is not to be opened, unless the prize is decreed.

They shall be submitted to the Judgment and decicion of the Medical Professors of the University of Pennsylvania.

Although the first effort in this truly important research has not proved successful, yet when we consider its magnitude, it is believed no additional reason need be given for continuing the attempt to enlarge our knowledge, where the preservation of human life is the object. We hope no discouragement will arise from the failure of the late dissertations, in which ingenuity and learning are evident, as our aim is to arrive at a knowledge of the means of restoring life more effectual than any yet in use; being persuaded that the discovery of such means will amply repay the most laborious investigation, and form a new epoch in the progress of humanity and science.

By order of the Managers of the Humane Society,

JOSEPH CRUKSHANK, *President.*

ISAAC SNOWDEN, Jun. *Secretary.*

Philadelphia, June 15, 1808.

New York Prize Medals.

The Medical Society of the State of New York, solicitous to promote medical and philosophical researches in the

several counties of the state, have for the present year proposed the following Prize Medals.

1st. A medal value fifty dollars, for the best dissertation on the topography, geology, and mineralogy of any county in the state, together with an account of the prevalent diseases in such county.

2d. A medal, value twenty-five dollars, for the second best dissertation on the same subject.

3d. A medal, value twenty-five dollars, for the best dissertation on the causes, and best method of preventing and of curing the typhus mitior, or low nervous fever, which prevails in the different counties in the state.

The dissertation must be delivered to the President of the Society, at his residence in the city of New York, or to the Secretary of the Society at Waterford, in the county of Saratoga, on or before the last Tuesday in January, 1809.

The authors' names must be enclosed in sealed letters, with a motto or superscription corresponding to one in the dissertations, and which letters will not be opened till the prizes are adjudged.

JOHN STEARNS, *Sec'ry*
of the Medical Society of the State of New York.
Med. Rep. No. 43.

PARISIEN *experiments on* POTASH *and* SODA.

[Great interest has been excited in the chemical world by some experiments lately made by Professor Davy, to ascertain the basis of Potash and Soda—from the following extract of a letter from a gentleman in Paris to Professor Silliman, which is copied from the Connecticut Herald of July the 12th, it will be seen that these experiments have been repeated at Paris in presence of the emperor with complete success.]

" I lately received a letter from Sir Charles Blagden, of London, in which he gives an account of an important chemical discovery, which Mr. Davy has lately made. This indefatigable professor has, by means of Volda's galvanic pile, discovered the bases of Potash and Soda. " He has obtained them separately, says Sir Charles, and they look like metals both in their solid and fluid form. They also combine with metals, preserving their metallic appearance. With oxygen they recompose potash and soda." The French chemists with eagerness caught this intelligence, repeated the necessary experiments, and found a result similar to that of Mr. Davy. The discovery of this new link in the chain of Physical science, was for some time the principal topic of conversation among the *sçavans* of Paris. The interest it excited reached even the palace, and the emperor ordered M. Gay Laussac, one of the most persevering and distinguished experimental chemists of France to go over the process of Mr. Davy in his presence. The success was so satisfactory to his majesty, that he in order to encourage the chemists in experiments of this nature, caused a new and more enlarged galvanic apparatus to be purchased for their use, at the publick expence. But this apparatus is now found to be unnecessary.

" Messrs. Thinard & Gay-Laussac have been able after torturing these substances in a variety of ways, to decompose them without the aid of galvanism. The decomposition is effected by combining these alkalies with carbon and iron, by means of a very high temperature. From a combination of carbon with potash or soda, results a black mass which suddenly inflames when put in contact with the air, or plunged in water.

" These two chemists have already submitted these metals to a number of interesting experiments, the result of which will soon be made publick. Much is expected from

their constant and well directed labours, and indeed it is generally believed here that this discovery will gradually lead to others of equal, and perhaps superior importance.—As the metals of potash and soda can be easily procured, at least for experiment, the relations which they sustain to other substances, will form a new and useful subject for chemical investigation.

"It is Mr Davy's opinion, that the different earths consist of bases of a peculiar metallic nature, have a very strong affinity for oxygen, by uniting with which they form those earths respectively. He believes that he has already made visible by the assistance of galvanism, the basis of the one called barytes."

An Account of the Perkiomen Zinc Mine, with an Analysis of the Ore. By JAMES WOODHOUSE, *M. D. Professor of Chemistry in the University of Pennsylvania, &c. In a Letter to the Editor of the Philadelphia Medical Museum.*

SIR,

The zinc mine, an account of which you have requested for the Medical Museum, is situated on the side of a high hill, on the bank of Perkiomen creek, about twenty miles from Philadelphia. The miners have made an excavation to a considerable distance on the side of the hill. They have already nearly completed a shaft on the top of the hill. The surface of the earth is covered with compact and laminated sulphate of barytes, iron pyrites, rock chrystal, quartz, &c. which have been dug up from the bowels of the earth, in sinking the shaft and making the excavation.

Three varieties of ore are found in the mine: the lead-coloured, the yellow, and the deep black.

The specific gravity of the lead coloured (which is the most abundant), at 60° of Fahrenheit, is 5.3211.

Two thousand grains of this ore, reduced to an impalpable powder, and exposed two hours to the intense heat of an air furnace, lost 900 grains in weight, which consisted of water and sulphur.

One thousand grains of the powdered ore were boiled an hour in an oil flask, with two ounce measures of sulphuric acid. Water was added to this mixture, which, being filtered and evaporated, produced a compact mass of sulphate of zinc or white vitriol, weighing 1730 grains. A residuum was left in the flask, which weighed 508 grains; upon exposing it to heat, 262 grains of sulphur sublimed from it, and the residuum in the subliming vessel weighed 246 grains, which, boiled in an ounce measure of sulphuric acid, yielded 200 grains of white vitriol.

The residuum from 246 grains was mixed with potash and exposed to heat, when it formed a brown mass, which powdered and dissolved in water formed the liquor of flints, from which the silex was precipitated by the muriatic acid.

One hundred grains of the ore were dissolved in an ounce and an half measure of nitric acid, diluted with an equal quantity of pure water. Ten grains of a residuum remained, which, when viewed through a microscope, appeared to consist of fragments of grey quartz, mixed with globules of sulphur. The zinc was precipitated from this nitric solution by mild potash, and, when dry, it weighed 140 grains.

It is said by chemists, that the weight of the oxide of zinc, precipitated by mild alkali from its solution, will amount to 193 grains, for every hundred of the metal it represents.

According to this calculation, 100 grains of the Perkiomen ore, must contain 72 of metallic zinc.

The white vitriol obtained from 1000 grains of the ore, was dissolved in pure water.

Plates of metallic zinc were left in this water for several days, when 26 grains of metallic iron were precipitated.

Metallic zinc was procured from the ore mixed with charcoal by exposing the two substances to the heat of an air-furnace, in a coated earthen retort, to the neck of which a tin tube was luted, which communicated with water, in order to keep off the action of the oxigenous portion of the atmosphere.

Brass was manufactured by mixing the powdered ore with charcoal, and laying pieces of copper on the surface of the coal, and exposing the whole to the heat of an air-furnace, in a covered crucible for several hours.

Similar experiments were performed on the black ore with nearly the same results.

According to these experiments, 100 grains of the Perkiomen ore consists of about 72 parts zinc, 22 sulphur, 3 iron, and 3 silex. Some specimens of it contain a portion of lead.

These proportions are not given as just, for it is almost impossible to analyze a zinc ore with perfect accuracy. We can only approximate to the truth.

It is not absolutely fair to deduce the quantity of metal a zinc ore may contain, from the weight of its precipitate by a mild alkali, as recommended by Nicholson; for this weight will vary with the quantity of carbonic acid the potash may contain, with the degree of heat to which the precipitate may be exposed, and with the quantity of water which may adhere to it.

If we attempt to analyze the ore by manufacturing it into brass, as recommended by Accum, who considers this

process as tolerably accurate, we lose a large quantity of the metal which escapes in the form of the flowers of zinc.

Can this ore be worked to advantage in the United States?

No information on this subject can be obtained from any book with which I am acquainted. Dr. Meade, a gentleman possessed of extensive knowledge on mineralogy, informed me, that it is never worked in England. Dr. Bruce, professor of this science in the college of physicians, New York, told me it is reduced in Wales; and Mr. Godon, of Boston, who is extremely well acquainted with subjects relating to this business, has declared that the zinc cannot be obtained from this kind of ore in the large way but with the utmost difficulty. *Phil. Med. Mus. No.* 18.

UNIVERSITY of PENNSYLVANIA.

The Medical Department of the University is rapidly increasing in respectability, and in the number of its pupils. The aggregate amount of the students during the last winter, was not less than 270 or 275.

The greatest number of these were from the states *south* and *west* of Pennsylvania, a few were from New England, a greater number from New Jersey,; two or three from the West India Islands; and at least two from Europe

On the 27th of April last a public examination of the Medical candidates, was held in the presence of the Trustees and Faculty of the University, and a number of the citizens; and on the following day, the degree of Doctor of Medicine was conferred upon sixty gentlemen, each of whom had written and submitted to the Medical professors an Inaugural Dissertation, which was publicly defended. The following is a list of the Graduates, a notice of the states or countries from which they came, or in which they reside, and the title of their dissertations.

1. Branch T. Archer, of Virginia, on Cutaneous Absorption.

2. John Arnest, of Maryland, on Abscess.

3. William Aspinwall, of Massachusetts, on Diabetes Mellitus.

4. Jacob Baer, of Frederick-town, Maryland, on Puerperal Fever.

5. Samuel Baker, of Maryland, on the form of disease usually denominated Chorea Sancti Viti.

6. William P. C. Barton, of Pennsylvania, on the chemical properties and exhilarating effects of the Nitrous Oxyd Gas; and its application to Pneumatic Medicine.*

7. Samuel Benezet, of Pennsylvania, on the Cynanche Trachealis.

8. Samuel Betton, jun. of Philadelphia, Observations made in two voyages to India.

9. George Gallaway, of Virginia, an Experimental Enquiry into the properties and effects of the Juglans Cinerea.

10. James Clark, of the county of Cavan, in Ireland, on the diurnal revolutions of the body.

11. Samuel Calhoun, of Pennsylvania, on the influence of Light in producing the Colours of Animal and Vegetable bodies.

12. Matthew Cunningham, of Philadelphia, on local inflammation.

13. John H. Davis, of Pennsylvania, on Lunar Influence.

14. Archibald B. Dick, of Alexandria, in Virginia, on the Pulse.

15. William Dicks, of South Carolina, on Tetanus.

16. George Fairlamb, of Pennsylvania, on Hepatitis.

17. Michael A. Finley, of Baltimore, on the use of the Muriatic Acid.

18. William Foushee, jun. of Virginia, on Cynanche Trachealis.

19. Alexander Frazer, of Charleston, S. C. an attempt

to prove that there is no definite period of Utero Gestation in the Female of the human species.

20. Robert I. Grayson, of Virginia, an Investigation of the different Opinions in favour of the Contagious Nature of Remittent and Intermittent Fevers, together with an Enquiry into the Laws of Miasma.

21. William Grayson, of Virginia, on the Nourishment of the Fœtus in Utero.

22. Samuel Greenlee, of Virginia, on the advantages of Scepticism in the study and improvement of Medicine.

23. William Willmot Hall, of Maryland, Strictures on the use of Cold Water in the Cure of Fevers.

24. Isaac H. Hampton, of New-Jersey, on Pneumonia.

25. Arnold Hannenkampf, on the Influenza.

26. James Haynsworth, of the High Hills of Santee, South Carolina, on the Yellow Fever, as it appeared in Charleston, in the year 1807.

27. Nathan Hayes, of Pennsylvania, on the manner in which Medicines act upon the living system.

28. Isaac Heister, of Pennsylvania, an Historical, Philosophical Enquiry into Absorption; containing a series of arguments to prove the absorption of substances not nutrient, whether applied externally or internally to the human body, as well as to that of some inferior animals.

29. Samuel Humes, of Pennsylvania, on Dyspepsia.

30. Samuel Jackson, of Philadelphia, an Essay on Suspended Animation.*

31. Joseph Jones, of Virginia, on Hepatitis.

32. Samuel Leake, of Virginia, on Vision.

33. Charles Lukens, of Pennsylvania, an Essay on Fever.

34. Henry Marim, of Delaware, on Influenza as it appeared in the state of Delaware, in 1807; with some observations on the nature of the disease.

35. Robert Mayo, of Virginia, on the Sensorium.

36. Archibald M'Kenney, an Essay on the Physiology of the Human mind.

37. Nathaniel Nelson, jun. of New-Town, Virginia, on Measles.

38. I. B. Otto, of Pennsylvania, on Tetanus.

39. James Page, of Baltimore, Maryland, on Superfœtation.

40. Robert Maskell Patterson, of Philadelphia, in proof of the influence of the Moon in diseases.

41. John Perkin, of Philadelphia, on the Hydrocele.

42. William Pinkney, of Maryland, on the Cholera Infantum.

43. John Hunter Pope, of Georgia, on the Vesiculæ Seminales.

44. Philip C. Pope, of Virginia, on the nature and treatment of the Hypochondriasis.

45. George Poyntell, of Philadelphia, on that grade of Madness called Manalgia.

46. Thomas Grimball Prioleau, of Charleston, South-Carolina, on the Araba Spinosa.

47. Boanerges Roberts, of Virginia, on the Medical properties of a species of Asclepia, or Swallow-wort.

48. Reuben S. Saford, of Georgia, on the influence of the mind on the body in producing Diseases and Death.

49. Richard Shubric, of Charleston, S. C. on Menstruation.

50. Fitz R. Smith, of New-Jersey, on the Medical properties of common Daffodil.

51. William Kilty Smith, of Maryland, on Mortification.

52. Isaac A. Smith, of Virginia, on the virtues of the Mineral Waters.

53. Samuel Stewart, of Pennsylvania, on Cuticular Absorption.

54. John D. Thomas, of Philadelphia, on the Scrophulous disease of the hip-joint.

55. Isaac Todd, of New-Jersey, on Thirst, and the advantage of abridging the use of Diluents in diseases which require depletion.

56. Edmund H. Tucker, of George-Town, S. C. on Cataract.

57. John Willson, of Alexandria, Va. on the Transfusion of the blood.

58. John Wishart of Pennsylvania, on Thyrocele, (or Bronchocele).

59. Joseph Woollens, jun. of Pennsylvania, on Hydrocephalus Internus.

60. Thomas Worthington, of Maryland, on the Modus Operandi of Medicines.

The degrees were conferred on the Graduates by John M'Dowell, L.L.D. who is now the Provost (or Principal) of the University; after which an Address was delivered to them by Dr. Barton, the Dean of the Medical Faculty, for the present year.

By a late regulation of the Trustees of the University, the medical graduates are not obliged to *publish* their Inaugural Dissertations. After the dissertations have been submitted to the Medical Faculty, *if they are approved of*, the publication is altogether optional; or entirely the act of the graduate. In consequence of this regulation, which has now been in operation for two terms, only a small number of the dissertations have been printed and published. Of the sixty, the titles of which are given above, only three have been published*—these are marked with an asterisk. * Others, however, are intended for publication, either entire or in part, and some of them, perhaps, in a state more im-

* There occurs a mistake here; as only *two* of the dissertations are marked with an asterisk; but whether made in the copy or the original communication, the Editor cannot tell, as he has not been able to see Dr. Barton's Medical and Physical Journal, from which this is said to be taken. E.

proved (by the authors themselves) than that in which they were originally presented to the Medical Faculty.

The writer of this account does not hesitate to give it as his own *individual* opinion, that the present existing regulation of the trustees, in regard to the inaugural dissertations, is an improvement upon the former system. To *compel* a young man who acknowledges that he has nothing new or important to communicate to the world, (and whose dissertation is found, on examination, to have no claim whatever to *original* merit) to appear before the public as an author, seems, to use the mildest phrase, an *unnecessary* procedure. It is not meant to be insinuated, that such is the character of *all* the inaugural dissertations which have, hitherto, been published in Philadelphia—So far is this from being the case, that it is believed that few universities, in any country, have produced more respectable original dissertations than some *(not a few)* of those which have at various times, particularly since the year 1792, been presented to the trustees and medical professors of the university of Pennsylvania. These dissertations have not only procured reputation to their authors, but have even served to raise the reputation of the school which gave them birth.

But it is well known that many of the inaugural dissertations of this and other universities are, at best, but mere transcripts, and even imperfect transcripts, of the opinions or doctrines of the professors. Others are crude and unfinished performances, such as only serve to diminish the reputation of the school ; and such, indeed, as their authors, at the expiration of a year or two, are ashamed to see, or acknowledge. Surely it is advisable that such essays should not be permitted to be published ; or at least it is proper that the authors should not be *constrained* to publish them.

It may be said, however, as it often has been said, that this new regulation of the trustees (a regulation introduced at the request of the Medical professors) serves to deprive the

public of some *important* dissertations. Whatever foundation there may be for this suspicion it is certain that the new rule does not certainly lead to this evil. On the contrary, it is even probable that the dissertations which are really worthy of publication will sooner or later be printed and published in a more finished form than that in which they were originally presented to the professors. In regard to several of the dissertations of the present year, it is known to be the intention of the graduates to publish them, when they shall have more leisure for the task, or shall have repeated, upon a more enlarged scale, the experimental parts of their essays. *Wash. Mon.*

The following letter on the subject of contagious fevers addressed to D. C. Chisholm from Dr. David Hosack is copied from the New York Herald of the 16th inst.

New York, July 15th, 1808.

Dear Sir,

Agreeably to my promise in a former communication, I shall now state to you the result of my observations on the subject of contagion, which has created so much dispute in the medical world, and which divide our profession in the western as well as in the eastern hemisphere—As far as I have examined this subject, it appears to me to be more a dispute about *words* than *facts*. The abuse of the terms Contagion and Infection, and the neglect of writers in not annexing to them a precise definition of the manner in which they severally employ them, have, I believe, been the source of our medical warfare relative to the contagiousness of Yellow Fever, and some other diseases. *e. g.* the greater number of medical writers enumerate in the list of contagious diseases, all those which are in any way communicable from one person to another, whether by *contact*,

fomites, atmosphere, &c. without designating the *circumstances* attending these several modes of communication.

Lind, in his papers on contagion and infection (which he considers as synonimous terms) is guilty of this error, in which he has been followed by most writers upon the subject of fever, &c. The late Dr. Bayley, in his account of the Yellow Fever which prevailed in New York, in 1795, proposed a distinction between contagious and infectious diseases: He made use of the first term to denote such as are communicated under any circumstances of atmosphere, whether pure or impure, as small-pox, measles, &c. Infectious diseases he denominated those which are communicated in consequence of an impure or vitiated state of the atmosphere. i. e. that the *impurities* of the atmosphere communicate the disease, not that the air contains any *specific material* derived from the patient, except such as may be occasioned by want of cleanliness; this distinction proposed by Dr. Bayley, is, in my opinion, an approach nearer the truth than any of his predecessors have advanced, but it does not present us with a view of the *whole truth* upon this subject. The visitor or attendant contracts disease from one of *two sources*, either from the filth of the sick room or from a *specific something* issuing from the body of the sick, the consequence of the peculiar disease under which he labours. If a person visiting another ill of the Yellow Fever or Plague, derives his disease ftom the *impure atmosphere* of the apartment, I ask, how it happens, that in all instances he contracts the *same disease* with that of the person whom he visits? Why is his disorder not an *intermittent*, a *remittent*, *jail fever*, or *dysentery*, which are considered the usual produce of filth? If he derives any thing specific from the sick, his disease is then assuredly not to be considered as occasioned by the *atmosphere* but depending on the *peculiar condition of the fluids* or state of the system induced by the action of a specific poison, in other words, it is to be

considered a *contagious* disease. The distinction proposed by Dr. Bayley, inasmuch as it does not account for the communication of the *peculiar form* of fever or disease which is thus propagated, I therefore consider to be insufficient to account for the circumstances attending the communication of those diseases to which it is applied.—That I may not be misunderstood, I will suppose A to be ill of a dysentery, a disease well known to be attended with a *peculiar train of symptoms*, he is in a small confined apartment, his person is neglected, the atmosphere around him is rendered impure and offensive; under these circumstances B visits him, and a few days after is also taken sick with the *same disease*, attended in all respects with the same dangerous symptoms which characterise the disorder of A. Dr. Bayley, and those who adopt the doctrine of *infection* as opposed to *contagion*, consider the disease of B to proceed from the *impurities of the air of the chamber*, and not any thing peculiar emanating or secreted from the body of A.—But as we may *without hazard*, visit an equally filthy chamber where C lies ill of Cholera Morbus, or D with a broken limb, I therefore ascribe the disease of B to something more than the *impure air* of the chamber of A. I ascribe it to a *peculiar virus* generated in his system by the disease under which he labours, and communicated by his excretions to the surrounding atmosphere, rendering it thus capable of producing the same disease in those who may be exposed to its influence.

The communication of this virus from the sick to the well in whatever form it may be conveyed, as uniformly produces the same disease as inoculation excites small-pox, or vaccination conveys the vaccine virus—So far then there is something in *common* in the communication of contagious and infectious diseases, and should be accordingly expressed in the language we employ—some of those diseases are conveyed in one form, others in a different, we should then

be equally careful to mark those circumstances in which they differ, as well as those which they possess in common.

Such an arrangement appears to me not only *practicable*, but, at the same time, calculated in some degree, to harmonize the differences of opinion which now separate the contagionists and non-contagionists. Under these impresssions, I propose to arrange those diseases which are communicable from one to another, under three heads.—First, those which are communicated exclusively by contact. In this class I enumerate the *Itch*, *Syphilis*, *the Sibbens of Scotland*, *the Laanda of Africa*, *Frambœsia or Yaws*, *Elephantiasis or Leprosy*, *Hydrophobia*, *and the Vaccine virus*. Neither of those diseases can be communicated in any other way than by *contact*; they are therefore *contagious* diseases in the strict etymological sense of the term. It is also to be remarked that these diseases are never conveyed through the medium of the atmosphere: actual contact alone can communicate them from one person to another.

These diseases, acknowledged by all to be contagious, and so denominated by all writers, have a law of communication peculiar to themselves. But there is a second class of diseases also considered as contagious, which are communicated under different circumstances, governed, in this respect by different laws of communication.

Those to which I now allude are such as are communicated both by contact and by the atmosphere. In this class I arrange *Small-pox*, *Measles*, *Chicken-pox*, *Influenza*, *Hooping Cough*, *Scarlet Fever and Cynanche Maligna*.

Contact, or the close approach to the sick, labouring under these diseases, will communicate them to those who are susceptible of their influence—but they are no less communicable through the medium of the atmosphere. A second law, which governs the communication of this class of contagious diseases, is that they are communicable in every season,

in the heat of summer as well as in the cold of winter—in a pure as well as in an impure air, though more readily by the latter than the former. A third law of communication in this class of diseases is, that the persons afflicted with them, are not generally susceptible of a second attack. I say *generally*, because exceptions are related upon very respectable authority.

This second class of contagious diseases is therefore abundantly distinguished from the first; but they are still associated by most medical writers under the same head of contagious diseases, without assigning to each class its discriminating characters.

The same want of discrimination has, in my opinion, occasioned the numerous disputes among Physicians relative to the contagiousnese and non-contagiousness of those Fevers which I enumerate as the *third class* of diseases that are communicable from one person to another. Under this head I arrange, Plague, Yellow Fever, Typhus, *Jail, Ship, Hospital* or *Lake Fever*, and Dysentery. These diseases are only communicable through the medium of an *impure* atmosphere; in a pure air, in large and well ventilated apartments, when the dress of the patient is frequently changed, all excrementitious discharges immediately removed, and attention paid to cleanliness in general, these diseases are not communicated, or very rarely so, from one to another. But in an *impure* air, rendered so by the decomposition of animal and vegetable substances, as takes place in low marshy countries, or by concentrated human effluvia, as in Camps, Jails, Hospitals, or on Ship-board, they are rendered not only extremely malignant and mortal in themselves, but become communicable to others who approach the sick or breathe the same atmosphere which has become *assimilated* to the poison introduced, in so much that *the same specific disease* is communicated, whether it be the *Plague, Yellow Fever, Typhus*, or Dysentery.

Hence we account for the fact stated by Sydenham and other writers on Epidemics, that the prevailing disease swallows up all other disorders, i. e. that during the prevalence of an Epidemic, Plague, Typhus, Dysentery, or other diseases of this class, every indisposition of a febrile sort, readily assumes the character of the prevailing disorder—we know this to be experienced in the diseases of other countries and we see it daily exemplified in our own: both in our cities and in the country towns when after heavy showers of rain and the action of a hot sun, a decomposition of vegetable and animal substances takes place, and Dysentery or Typhus Fever is produced, it assimilates the air to itself whatever may be the acting poison. But under other circumstances of weather and season the disease thus originating from some local circumstances or from a peculiar habit of body in the person so affected, does not extend beyond the family in which it first occurred, or perhaps, the individual in whom it originated.

This class of diseases, therefore, like the former, has a law peculiar to itself: i. e. the diseases composing it are communicable or otherwise, depending upon the *condition of atmosphere*, in which they occur or are introduced—whereas those of the second class are conveyed from person to person, thro' a *pure* as well as an *impure* medium; but they also are rendered more virulent and malignant in an atmosphere charged with miasmata than in that which is free from such ingredients.

It is also, I believe, generally true of the diseases of the *third class*, not perhaps excepting in some instances, the *plague* and *yellow fever*; that they may be taken a *second time*. This has been advanced by the advocates for the domestic origin of yellow fever, as an argument against the contagiousness of this disease.

But upon the same principle they must deny the contagiousness of all those disorders which I have enumerated in the *first* class, as *Itch, Syphilis, &c.* for most of them, are also to

be taken a second time ; yet they are acknowledged by all to be *contagious diseases.* In the same manner, many persons make the *small pox* a standard, and conclude that yellow fever is not contagious, because it is not communicated under the same circumstances of atmosphere and season, and governed by the same laws with that disease.

They might with the same propriety conclude that the *scarlet fever* is not contagious, because it is not attended with the pustules of small pox. This teaches us the importance of correct language to convey the several degrees of contagion which have been noticed ; and that while we make use of the terms now in use, we should annex to them such explanations as will convey those different laws of communication which have been enumerated. With these precautions in the use of the language we employ, I believe, the contagionists and non-contagionists will find themselves very much in the situation of those Theologians, of whom Pascal speaks, and ready to adopt the expression of one of them, when he observes :

" La difference qui est entre nous, est si subtile qu' a peine pouvons nous la marquer nous memes."

We would then be ready to acknowledge, we are both right, we are both wrong : and to admit, that the Yellow Fever is a contagious or communicable disease, in an *impure* atmosphere ; but not so where the air is preserved pure and free from noxious materials.

This doctrine too, I believe, will better account for the apparently contradictory facts, which have been urged by the advocates of the two opposing opinions, than any system that has been adopted. It will also lead to a system of police regulations, which will best insure us against the ravages of Yellow Fever when introduced, at the same time that it will teach us carefully to guard against the introduction of it from abroad.

I shall treat this subject more at length upon another occasion, in connection with the evidences of the importation of the Yellow Fever into the United States.

I am, dear sir, respectfully yours,

DAVID HOSACK.

CASE *of Discharge from the* URETHRA *of a* PIN, *which had been taken into the* STOMACH: *Communicated by Dr.* JESSE F. JONES, *to Dr.* MILLER.

The following case being somewhat extraordinary, I have thought fit to communicate it for your consideration; and you are at liberty to make what use of it you think proper.

Peggy, an ancient female domestic in my family, in the month of March, 1804, inadvertenly swallowed a pin, which gave her some uneasiness as it passed the œsophagus, but by swallowing a piece of bread after it, the pin passed into the stomach. Nothing more was thought of the circumstance until July or August, when she complained of a pain in her stomach and bowels, with a nausea at times. Supposing that it proceeded from a bilious obstruction, I administered an emetic, which operated well both upward and downward, yet without relief; but she observed that the pain settled down lower in the abdomen, which lasted several months, when it gradually wore off, until it quite ceased sometime in the forepart of the winter; and she appeared to enjoy her usual health, until June, 1805, at which time she was seized with a strangury, and severe pain in passing her urine, which was emitted only in small quantity, and mixed with a considerable portion of blood. The symptoms growing more violent, demulcents, anodynes and diuretics were used, with the antiphlogistic

course, for the space of a week; when, to my surprize, I was informed that a hard substance presented itself at the orifice of the urethra, which was extracted with much pain, and considerable effusion of blood, when the symptoms disappeared, and in a few days the patient recovered. On examining the substance, it was found to be the pin which she had swallowed fifteen months before, covered with a calculous matter to a considerable thickness, except about the eighth of an inch at the point, which was entirely naked. The head of the pin was covered with the calculus to the size of a small garden pea, and quite smooth; below which was found a small neck, which increased in size as it approached the point, to the bulk of a large currant, and very rough; the largest circumference was a circular ridge, which was jagged with sharp points, which was the cause of the effusion of blood. The pin presented with its head; it would have been impossible for it to have passed with the point foremost, as the rough jagged ridge would have prevented. I did intend sending the pin to you, but showing it to some neighbouring physicans, unfortunately a part of the calculus was broken from the pin. The question naturally arises, in what manner the pin passed from the intestines to the bladder, and from what part of that canal it made the perforation? also, how it could perforate the bladder without producing a great degree of inflammation in that viscus; or whether it is possible to pass in any other manner than by producing an inflammation and adhesion of the intestine and bladder? On these questions I would solicit your opinion.

Med. Repos. No. 43

Change of a human Body to a fatty Substance, by Submersion in Water, after Death.

The following instance of the conversion of the muscles and flesh into the peculiar matter which seems to occupy the place between spermaceti and wax, was communicated to Dr. Mitchill by the well-known and respectable Lyman Spalding, M. D. in a letter dated Portsmouth, (N. H.) March 28, 1808, who vouches for the facts.

"In the Literary Mirror, a weekly gazette of Portsmouth, I saw an account of the body of a man having been picked up adrift more than twelve months after he was drowned. The singularity of the circumstance led me to make diligent inquiries relative to the facts.

"It appears, that on the 5th of March, 1807, a little before sun-set, Mr. Daniel Garland, of Kittery upper parish, aged about 45 years, left Springfield landing in a canoe, with the intention of going home. By some unknown accident, Mr. G. being alone, fell overboard; the canoe with the paddles in it, was taken up at Piscataqua bridge the next day.

"On the 13th of March, 1808, about eleven o'clock A. M. being high water, Mr. Staples, of Kittery, discovered something floating up the river, which he took to be a log, near a place well known by the name of Boiling Rock. Mr. Staples went off in a boat, and immediately discovered it to be the body of a man; he called for assistance, and by means of a board placed under the body, they carried it on shore.

"It was known to be the body of Mr. G. by the dress; having on a green shag waistcoat, which, with all the other clothes, were in a good state of preservation, except the coat, which was partly off the right arm, and hung about the neck.

"In his pocket was found his pocket book, containing several papers and some change: the papers, when taken out and dried, were perfectly legible; his clothes were covered with blue clay or mud.

"The body was in a good state of preservation, except the head and face, which were nearly stripped of their teguments; the right hand was off as far as the wrist, and the left hand had lost its fingers. All the other parts of the body were apparently sound, exhibiting the appearance of spermaceti: no trace of muscular substance was to be seen.—The cavities of the body were sound; the joints limber, and flexible. Within half an hour after the body was taken from the water, the skin turned of a purplish hue, but it was wholly free from smell at evening when it was buried.

"It is well known to naturalists, that when animal substances have been for a long time covered with earth, and moistened with water, that they are changed into a peculiar waxy substance, resembling spermaceti, to which has been given the name of adipocire. I have no doubt, from the appearances of that change having taken place in this body. We are forced to believe, that the body had been buried in this blue mud or clay, from the clothes being completely saturated with it; and had it not been buried, it must have been destroyed, if in the water, by fish, and if on the land, by vermin or putrefaction.

"The probability then being, that soon after death the body was covered over with earthy matter at the bottom of the river; it now remains to explain what should cause it to leave its incarceration at the bottom of the river, at a period of a little more than one year, and float on the surface, not like a drowned body, just perceptible above the water, but buoyant like a log, more than one half appearing above the surface of the water; which, we are credibly told was the case.

"The time required for converting animal substances into adipocire is by naturalists fixed at about one year. Shall we say that at this time the adipociration was completed on this body, and by that means the body had become specifically lighter than before; therefore at this particular time it broke its incarceration, and floated on the top of the water?" *ib.*

An Improvement of the Galvanic Trough, to prevent the Cement from being melted when the action is very powerful. Extracted from the Athenæum for March, 1808.

A gentleman of Tunbridge, who does not choose to make his name public, has found that considerable advantage arises from making galvanic troughs with glass partitions, for constructing galvanic batteries on the principle of Volta's *couronne des tasses*, in the manner recommended by Mr. Wilkinson which is described in our last number; the superiority of which, he takes for granted, to be fully established. In troughs constructed on Mr. Wilkinson's plan one material inconvenience is experienced; the increased action of the acid on the zinc plates, arising from their having the whole of their surfaces exposed to it, occasions so great an heat as frequently to melt the cement, with which the *wooden* partitions of these troughs are coated. Glass partitions completely prevent the heat from having any bad effect. It is best to make them so much larger than the metallic plates, that a space of about half an inch may be left between the sides and bottom of the trough and the extremities of the metallic plates. Common crown glass is well adapted for this purpose, if of thickness proportioned to the size of the partitions wanted, the upper edges of which should be ground very smooth. In batteries constructed on this plan the greatest intensity of excitation has been found to do no injury whatsoever to the cement. *ib.*

[As no information has reached the Editor of Dr. Hamm's exculpation from the charge so seriously brought against him in the following report of a committee, he is performing a duty which he owes to society by extending its publicity.] E.

The *Wilmington Museum* of the 16th inst. contains a report relative to the conduct of a Dr. *John Hamm*, of Dover (D.), which contains a detailed acount of his endeavours, contrary to the express wishes of a meeting of the citizens of the town, to introduce the *small-pox*. In a part of the report it is said that Dr. Hamm declared that he had *vaccinated* an apprentice boy of Mr. Harris's, and told Mr. Harris "to "say nothing about it, and there would soon be *small-pox* "enough in Dover." "Throughout the whole of this "business," says the committee, "Dr. Hamm seems to "have acted as an enemy to his species, regardless of con- "sequences." The committee conclude their report by offering "as their opinion, and as an opinion to be considered "by this meeting, that John Hamm ought to be publicly "stigmatized as a man who, like the murderer, has a heart "devoid of social duty, and fatally bent on mischief. On "motion, said report was unanimously adopted."

JOSEPH HARPER, *Chairman.*

Attest, CÆSAR R. WILSON, *Secr'y.*

We publish the above in consequence of its being stated in the report, that Dr. Hamm intends to move from Dover to some other part of the United States.

Phil. Med. Mus.

OBITUARY.

Died at his seat, near Philadelphia, Dr. William Shippen, one of the Professors of Anatomy, in the University of Pennsylvania.

——, Dr. George Buchanan, formerly a resident of Baltimore, and late Health Officer of the Port of Philadelphia.

☞ *The Editor feels it incumbent upon him to apologize to his subscribers for the late appearance of the present number; having been disappointed in his contract for paper, he found it extremely difficult to procure it until a very late period—he trusts, however, that such arrangements are now made as will secure to him the means of greater punctuality in future.*

The reader is requested to correct the following *errors* in the present number:—in page 119, line 3d of Dr. Potter's Communication for ta *read* at—page 120, line 18 for found *read* felt—and page 124, line 3d, after *she* insert had.